

MAINDEC

1.0

DISKLESS CONTROL TEST

1.0

DISKLESS CONTROL TEST

1972-1973

MAINDEC-08-DHRKA-B-0

IDENTIFICATION

| | |
|---------------|----------------------------|
| PRODUCT CODE: | MAINDEC-08-DHRKA-B-0 |
| PRODUCT NAME: | RK8E DISKLESS CONTROL TEST |
| DATE CREATED: | APRIL 19, 1973 |
| MAINTAINER: | DIAGNOSTIC GROUP |
| AUTHOR: | JOHN VROBEL |

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1, ABSTRACT

THE RKBE DISKLESS CONTROL TEST IS DESIGNED FOR THE PURPOSE OF CHECKOUT OF THE RKBE DISK CONTROL LOGIC NOT REQUIRING THE USE OF THE DISK DRIVE, THIS TEST SHOULD BE RUN WITH ALL EXISTING DRIVES SET TO THE LOAD POSITION.

2, REQUIREMENTS

PDP-8/E, 8/M, OR 8/E COMPUTER OR OTHER FAMILY OF 8 COMPATIBLE COMPUTER WITH NECESSARY DWBE BUS ADAPTER,

AT LEAST 4K OF READ/WRITE MEMORY
ASR-33 TELETYPE OR EQUIVALENT
RKBE DISK CONTROL
RK05 DISK DRIVE

2,2 SPECIAL

THE DISKLESS TEST CAN BE RUN WITH ALL DRIVES AVAILABLE CABLED TO THE RKBE CONTROL, HOWEVER, THE POWER MUST BE SUPPLIED TO THE DRIVES, AND ALL THE DRIVES MUST BE SET TO THE LOAD POSITION,

THE DISKLESS TEST CAN ALSO BE RUN WITH THE CABLES TO THE DRIVES DISCONNECTED FROM THE RKBE CONTROL,

2,3 STORAGE

THE PROGRAM UTILIZES OR OCCUPIES LOCATIONS 0000 TO 7577 OF THE CURRENT FIELD, IF THE CURRENT FIELD IS AN EXTENDED MEMORY FIELD, LOCATIONS 0000 TO 0003 OF FIELD 0 WILL ALSO BE USED FOR INTERRUPT SERVICE;

THE PROGRAM WILL ALSO TEST DATA BREAK TRANSFER TO ALL EXISTING EXTENDED FIELDS AS INDICATED BY SWR9=11,

3, PRELIMINARY PROGRAMS

ALL BASIC AND EXTENDED MEMORY DIAGNOSTICS SHOULD BE RUN PRIOR TO THIS TEST,

4, SWITCH REGISTER SETTINGS

~~OPERATOR AND/OR PROGRAM ACTION~~

SWR0=0 ENTER SCORE LOOP, AFTER AN ERROR HALT AT LOCATION "ERHLT0", RAISING THIS SWITCH AND PPRESSING KEY CONTINUE WILL CAUSE A SCORE LOOP ON THE CURRENT TEST. IF CHECKED AND THE TEST IS STILL FAILING, THE ERROR BELL SHOULD RING INDICATING AN ERROR.

SWR1=0 INHIBIT END OF TEST HALT. AT THE COMPLETION OF THE TEST THE PROGRAM SHOULD HALT AT LOCATION "ENDHLT". RAISING THIS SWITCH WILL INHIBIT THE END OF TEST HALT.

SWR2=1 INHIBIT ERROR BELL ON SCORE LOOP,

SWR3=1 GET ALL REGISTERS AFTER "ERHLT0", AFTER AN ERROR HALT AT LOCATION "ERHLT0", RAISING THIS SWITCH AND PPRESSING KEY CONTINUE WILL RESULT IN THE TYPEOUT OF THE ABSOLUTE CONTENTS OF THE STATUS, COMMAND, CRC, LOWER DATA, AND SURFACE AND SECTOR REGISTERS.

SWR4=1 STOP PROGRAM OR TEST HALT, RAISING THIS SWITCH WILL HALT THE PROGRAM AT THE COMPLETION OF THE CURRENT TEST. IF POSSIBLE THIS SWITCH SHOULD ALWAYS BE USED TO STOP THE PROGRAM.

SWR5=1 AMOUNT OF EXTENDED BANKS OF MEMORY, AT INITIAL START OF THE PROGRAM, SWRY=11 INDICATES THE AMOUNT OF EXISTING EXTENDED MEMORY FIELDS AVAILABLE TO TEST.

5, OPERATOR AND/OR PROGRAM ACTION

~~OPERATOR AND/OR PROGRAM ACTION~~

5,1 STANDARD TEST PROCEDURE

~~STANDARD TEST PROCEDURE~~

A, START AS SPECIFIED THROUGHOUT THIS DOCUMENTATION IS KEY CLEAR AND THEN KEY CONTINUE ON A FDP8/E, FDP8/F, OR FDP8/M COMPUTER.

B, LOAD THE PROGRAM INTO ANY RAM MEMORY BANK USING THE STANDARD SUMMARY LOADING TECHNIQUE,

- C, IF IT IS DESIRED TO CHANGE THE IOT CODES WITHIN THE PROGRAM, FOLLOW THE PROCEDURE IN SECTION 5,4;
- D, RUN THE DISKLESS CONTROL TEST PORTION BY FOLLOWING THE PROCEDURE IN SECTION 5,2;
- E, RUN THE MANUAL SCOPE TEST BY FOLLOWING THE PROCEDURE IN SECTION 5,3;

5,2 DISKLESS CONTROL TEST

- A, SET THE SWITCH LABELED "RUN/LOAD" TO THE "LOAD" POSITION ON ALL DRIVES, OR DISCONNECT DRIVES FROM RKBE CONTROL;
- B, IF DRIVES ARE CABLED TO THE RKBE CONTROL, VERIFY AC POWER IN THE DRIVE(S) IS ON;
- C, SET THE SWITCH REGISTER TO 0200 AND PRESS LOAD ADDRESS;
- D, SET THE SWITCH REGISTER TO 0000;
- E, SET SWR9=11 TO THE AMOUNT OF AVAILABLE EXTENDED R/W MEMORY BANKS AND START THE COMPUTER RUNNING;
- F, SET SWR1&4 IF THE OPERATOR DESIRES TO INHIBIT THE END OF TEST HALT AT LOCATION "ENDHLT";
- G, SWR4=1 SHOULD ALWAYS BE USED TO STOP THE PROGRAM;
- H, THE PROGRAM SHOULD PRINT THE FOLLOWING MESSAGE AT THE COMPLETION OF EACH SUCCESSFUL PASS APROX. EVERY 3,5 MINUTES;

"RKBE DISKLESS PASS COMPLETE"

- I, ANY HALTS OR TYPEOUTS OTHER THAN THE PASS COMPLETE TYPEOUT AND THE END OF TEST HALT MENTIONED ABOVE WILL BE CONSIDERED AN ERROR CONDITION, IN ALL CASES ACCESS "ERRORS" SECTION 6 IN THIS DOCUMENTATION;
- J, FOR ABSOLUTE LOCATIONS OF ALL KNOWN HALTS ACCESS PAGE 4 OF THE PROGRAM LISTING.

5,3 MANUAL SCOPE TEST FOR 16 BIT COUNTER

THIS TEST ENABLES THE OPERATOR TO TEST THE 16 BIT COUNTER WHICH CANNOT BE TESTED UNDER PROGRAM CONTROL IN THE REGULAR DISKLESS TEST, TO RUN THIS TEST, SIMPLY FOLLOW THE FOLLOWING INSTRUCTIONS;

- A, RUN THE DISKLESS CONTROL TEST PORTION PRIOR TO THIS MANUAL TEST;
- B, SET THE SWITCH REGISTER TO 0201 AND PRESS LOAD ADDRESS,

- C, SET THE SWITCH REGISTER TO 8200 AND PRESS START,
- D, SCOPE THE 16TH CARRY OUTPUT, TEST POINT 1 (T1), ON THE M7106 MODULE IN THE HKBE CONTROL LOGIC, FOR A POSITIVE GOING SIGNAL,
- E, THE APPROX. SIGNAL SHOULD BE A GROUND TO + 3 VOLT PULSE, 9 MICRO-SECONDS WIDE, OCCURRING AT A 140 MICRO-SECOND RATE;
- F, ALL THAT THE PROGRAM DOES IN THIS SCOPE TEST IS TO CONSISTENTLY ISSUE HI MAIN SHIFT PULSES TO THE 16 BIT COUNTER ON THE M7106 MODULE,

5,4 CHANGE PROGRAM DEVICE IOT CODES

THE PROGRAM NORMALLY RECOGNIZES PROGRAM DEVICE IOT CODE X74X, TO CHANGE THE PROGRAM DEVICE IOT CODE:

- A, SET THE SWITCH REGISTER TO 8202 AND PRESS LOAD ADDRESS,
- B, SET THE SWITCH REGISTER TO 8000, SET SWITCH REGISTER BITS 3-8 TO THE DESIRED DEVICE IOT CODE, AND PRESS START,
- C, THE PROGRAM WILL CHANGE THE DEVICE IOT CODES WITHIN THE PROGRAM AND THEN HALT,
- D, THE OTHER TESTS CAN THEN BE RUN (SEE SECTIONS 5,2 + 5,4),

6,1 ERRORS

THE LOCATION OF ALL KNOWN HALTS CAN BE FOUND BY ACCESSING PAGE 1 OF THE PROGRAM LISTING.

ALL ERRORS FOUND WHEN RUNNING THIS TEST SHOULD BE CORRECTED BEFORE PROCEEDING ON IN THE TEST.

WHEN AN OPERATOR ENCOUNTERS AN ERROR WHEN RUNNING THIS TEST HE SHOULD, IN ALL CASES, READ THE ERROR TYPEOUT INFORMATION, NOTE THE LOCATION OF THE FAILURE, READ ALL THE INFORMATION UNDER ERRORS IN THIS DOCUMENTATION, AND THEN ACCESS THE PROGRAM LISTING FOR FURTHER INFORMATION,

6,2

NON-RECOVERABLE ERROR HALTS
 =====

NON-RECOVERABLE ERROR HALTS FOR WHICH THERE ARE NO
 TYPEOUTS OR SCOPE LOOPS ARE LISTED AND DEFINED AS FOLLOWS:

| | |
|--------|--------------------------|
| ERHLT1 | UNDEFINED INTERRUPT |
| ERHLT2 | SKIP TRAP FOR IOT "DCLR" |
| ERHLT3 | SKIP TRAP FOR IOT "DLAG" |
| ERHLT4 | SKIP TRAP FOR IOT "DLCA" |
| ERHLT5 | SKIP TRAP FOR IOT "DRST" |
| ERHLT6 | SKIP TRAP FOR IOT "DLDC" |
| ERHLT7 | SKIP TRAP FOR IOT "DMAN" |

6,3

RECOVERABLE ERROR HALT
 =====

ALL RECOVERABLE ERRORS, FOR WHICH THERE ARE SCOPE LOOPS
 AND ERROR TYPEOUTS, SHOULD RESULT IN AN ERROR HALT AT
 "ERHLT9".

| | |
|--------|--|
| ERHLT9 | RECOVERABLE ERROR HALT: READ INFORMATION TYPEOUT ON TTY AND ACCESS LISTING, |
|--------|--|

6,4

ERROR TYPEOUTS
 =====

WHEN A RECOVERABLE ERROR OCCURS THE PROGRAM WILL
 PRINT AN "ERROR HEADER" WHICH WILL SPECIFY THE
 PARTICULAR REGISTER IN ERROR OR TYPE OF ERROR FOUND
 AT THE TIME OF THE FAILURE.

POSSIBLE "ERROR HEADERS" ARE AS FOLLOWS:

- AC REGISTER ERROR
- STATUS REGISTER ERROR
- COMMAND REGISTER ERROR
- DISK ADDRESS REGISTER ERROR
- DATA BREAK ERROR
- CRC REGISTER ERROR
- DATA REGISTER ERROR
- DISK SKIP ERROR
- DISK INTERRUPT ERROR

AFTER THE "ERROR HEADER" MENTIONED ABOVE IS TYPED, THE PROGRAM WILL PRINT THE FOLLOWING ERROR INFORMATION FOUND AT THE TIME OF THE FAILURE, PERTAINING TO THE FAILURE, POSSIBLE TYPEOUTS ARE AS FOLLOWS,

PLI PROGRAM LOCATION OF THE ACTUAL FAILURE;
GDI REFERS TO THE DATA EXPECTED IN THE REGISTER OR TYPE OF TEST SPECIFIED IN THE "ERROR HEADER";
CRI CONTENTS OF THE CRC REGISTER;
STI CONTENTS OF THE STATUS REGISTER;
DBI CONTENTS OF THE LOWER DATA REGISTER;
CMI CONTENTS OF THE COMMAND REGISTER;
DAI CONTENTS OF THE DISK ADDRESS REGISTER OR THE CYLINDER, SURFACE, AND SECTOR BITS;
ADI BREAK ADDRESS OF DATA BREAK;
DTI DATA FOUND DURING DATA BREAK;
ACI CONTENTS OF THE AC REGISTER.

THE "GDI" INFORMATION TYPED OUT POINTS TO THE DATA EXPECTED IN THE REGISTER IN ERROR OR TYPE OF ERROR TYPED OUT IN THE "ERROR HEADER";

THE ERROR INFORMATION INDICATOR SUGGESTED BY THE "ERROR HEADER" (I.E., DAI FOR DISK ADDRESS ERROR, CMI FOR COMMAND REGISTER ERROR, CRI FOR CRC REGISTER ERROR, ETC.) IS THE ACTUAL CONTENTS OF THAT PARTICULAR REGISTER. ERROR INFORMATION OTHER THAN THAT SUGGESTED BY THE "ERROR HEADER" IS THE SOFTWARE INFORMATION LOADED INTO THAT REGISTER PRIOR TO THE FAILURE, (NOTE: "STI" STATUS ALWAYS INDICATES THE ACTUAL CONTENTS.)

TO TYPEOUT THE ACTUAL CONTENTS OF THE CRC, STATUS, LOWER DATA, COMMAND, AND SURFACE AND SECTOR REGISTERS, AFTER AN ERROR HALT AT LOCATION "ERHLT9", SET SWR\$#1 AND PRESS KEY CONTINUE;

6,5

SCOPE LOOPS

~~=====~~

THERE ARE SCOPE LOOPS AVAILABLE FOR ALL ERRORS RESULTING IN AN ERROR HALT AT "ERHLT9";

TO ENTER SCOPE LOOP, INHIBIT ERROR TYPEOUT, AND INHIBIT ERROR HALT, AFTER AN ERROR HALT AT "ERHLT9", SET SWR0=1 AND PRESS KEY CONTINUE;

IF THE SCOPE LOOP IS WORKING CORRECTLY AND IF THE TEST IS STILL FAILING THE TTY BELL SHOULD RING, SET SWR2=1 TO INHIBIT THE TTY BELL;

6,6

TYPICAL ERROR TYPEOUTS

~~=====~~

THE FOLLOWING IS A TYPICAL EXAMPLE OF AN "ERROR HEADER" AND TYPEOUT THAT COULD HAVE OCCURRED IF A DISK IOT FAILED TO CLEAR THE AC REGISTER;

AC REGISTER ERROR
PC11541 GD10000 AC10100

THE FOLLOWING IS AN EXAMPLE OF AN "ERROR HEADER" AND TYPEOUT THAT COULD HAVE OCCURRED WHEN READING THE COMMAND REGISTER;

COMMAND REGISTER ERROR
PC12100 GD10222 CM10200

THE FOLLOWING IS AN EXAMPLE OF AN "ERROR HEADER" AND TYPEOUT THAT COULD HAVE OCCURRED IF THE DISK SKIP IOT FAILED TO SKIP;

DISK SKIP ERROR
PC13332

THE FOLLOWING IS AN EXAMPLE OF AN "ERROR HEADER" AND TYPEOUT THAT COULD HAVE OCCURRED ON A WRITE DATA BREAK;

DATA BREAK ERROR
PC14453 GD15252 CM14000 AD17777 DT15252

7,

RESTRICTIONS

~~=====~~

IF THE DRIVES ARE CABLED TO THE RK8E CONTROL LOGIC, THE AC POWER TO THE DRIVES MUST BE ON AND THE DRIVES MUST BE SET TO THE LOAD POSITION;

8;

TROUBLE SHOOTING INFORMATION

| 10T | FUNCTION |
|-----------|---|
| --- | ----- |
| 6741 DSKP | "SKIP" SKIP IF TRANSFER DONE FLAG OR ERROR FLAG IS SET, |
| 6742 DCLR | "CLEAR" FUNCTION IS REGULATED BY AC BITS 10 AND 11, THE AC IS THEN CLEARED, |

| AC10 | AC11 | |
|------|------|---|
| --- | ---- | |
| 0 | 0 | CLEAR THE AC AND STATUS REGISTER, |
| 0 | 1 | CLEAR THE AC, CONTROL, AND MAJOR REGISTERS; THIS INSTRUCTION WILL STOP THE CONTROL EVEN IF IT IS WRITING A HEADER, THIS IS THE ONLY INSTRUCTION THAT WILL CLEAR MAINTENANCE MODE, |
| 1 | 0 | CLEAR AC, RECALIBRATE DISK DRIVE, AND CLEAR STATUS REGISTER, |

| | |
|-----------|---|
| 6743 DLAG | "LOAD DISK ADDRESS AND GO" LOAD THE DISK CYLINDER, SURFACE, AND SECTOR FROM THE AC, CLEAR THE AC, AND DO THE COMMAND IN THE COMMAND REGISTER, |
|-----------|---|

| AC | |
|------|-------------------------------|
| --- | |
| 0-6 | CYLINDER |
| 7 | SURFACE (1= UPPER) (0= LOWER) |
| 8-11 | SECTOR |

| | |
|-----------|--|
| 6744 DLCA | "LOAD CURRENT ADDRESS" LOAD THE CURRENT ADDRESS FROM AC, THE AC IS THEN CLEARED, |
|-----------|--|

| AC | |
|------|-----------------|
| --- | |
| 0-11 | CURRENT ADDRESS |

| | |
|-----------|--|
| 6745 DRST | "READ STATUS" CLEAR THE AC AND READ THE CONTENTS OF THE STATUS REGISTER INTO THE AC, |
|-----------|--|

AC

--

| | |
|----|--------------------------------|
| 0 | TRANSFER DONE |
| 1 | READY TO SEEK, READ, OR WRITE, |
| 2 | NOT USED |
| 3 | SEEK FAIL |
| 4 | DISK FILE READY |
| 5 | CONTROL BUSY ERROR |
| 6 | TIME OUT ERROR |
| 7 | WRITE LOCK ERROR |
| 8 | CRC ERROR |
| 9 | DATA RATE ERROR |
| 10 | DRIVE STATUS ERROR |
| 11 | CYLINDER ADDRESS ERROR |

6746 DLDC

"LOAD COMMAND" LOAD THE COMMAND REGISTER FROM AC, CLEAR THE AC, AND CLEAR THE STATUS REGISTER.

AC

--

| | |
|-------|---------------------------------------|
| 0=2=0 | READ DATA |
| 0=2=1 | READ ALL |
| 0=2=2 | WRITE LOCK |
| 0=2=3 | SEEK ONLY |
| 0=2=4 | WRITE DATA |
| 0=2=5 | WRITE ALL |
| 0=2=6 | NOT USED |
| 0=2=7 | NOT USED |
| 3 | ENABLE INTERRUPT |
| 4 | ENABLE SET TRANSFER DONE ON SEEK DONE |
| 5 | HALF BLOCK 128 WORDS |
| 6 | EXTENDED MEMORY ADDRESS |
| 7 | EXTENDED MEMORY ADDRESS |
| 8 | EXTENDED MEMORY ADDRESS |
| 9 | UNIT SELECT |
| 10 | UNIT SELECT |
| 11 | EXTENDED CYLINDER ADDRESS |

6747 DMAN

"MAINTENANCE IOT" LOAD THE MAINTENANCE REGISTER FROM THE AC, THE FUNCTION IS REGULATED BY THE AC BITS, MAINTENANCE MODE CAN ONLY BE CLEARED BY DCLR "CLEAR CONTROL".

AC

--

3

1

2

ENTER MAINTENANCE MODE
ENABLE SHIFT TO LOWER BUFFER
AC BIT 10, CRC REGISTER, AND THE
LOWER DATA BUFFER ARE CONNECTED AS
A SHIFT REGISTER, AC BIT 10 DATA
SHIFTS TO THE CRC, THE CRC SHIFTS
TO THE LOWER DATA BUFFER,

3

4

5

SHIFT COMMAND REGISTER TO THE LOWER
DATA BUFFER,
SHIFT THE SURFACE AND SECTOR REGISTER
TO THE LOWER DATA BUFFER,
SHIFT AC 10 DATA TO THE UPPER
DATA BUFFER, THE UPPER BUFFER
SHOULD SINK IN THE S1LD WHEN
FULL,

6

ONE SINGLE CYCLE BREAK REQUEST,
DIRECTION IS REGULATED BY FUNCTION
IN THE COMMAND REGISTER,

7

CLEAR AC THEN READ THE LOWER
DATA BUFFER TO THE AC,

8

NOT USED,

9

NOT USED,

10

USED AS DATA WITH OTHER BITS IN
THE MAINTENANCE MODE,

11

NOT USED,

9. PROGRAM DESCRIPTION

THE RK8E DISKLESS CONTROL TEST IS BASICALLY A STATIC
REGISTER AND IOT TEST ON THE RK8E DISK CONTROL LOGIC NOT
REQUIRING THE USE OF THE DISK DRIVE, SINGLE CYCLE BREAKS
ARE ALSO EXECUTED TO AND FROM THE CONTROL LOGIC.

THE PROGRAM IS DIVIDED INTO MANY SEPARATE INDIVIDUAL
SUBTESTS, WHICH WILL TEST DIFFERENT PARTS OF THE CONTROL
LOGIC, THE SUBTESTS ARE ARRANGED IN SUCH A MANNER TO TEST
THE EASIEST FUNCTIONS FIRST, PRECEDED BY EACH SUBTEST, IN
THE LISTING, IS A SHORT EXPLANATION OF THE TEST AND LOGIC
TESTED,

A BRIEF EXPLANATION OF SUBTESTS AND PROGRAM FLOW IS
AS FOLLOWS:

A, SETUP

SETUP POINTERS AND RETURNS FOR CURRENT FIELD, AMOUNT
OF EXTENDED FIELDS, AND INTERRUPT SERVICE,

B, TST0-TST3

VERIFY REGISTERS AND CONTROL FLIP-FLOPS WERE CLEARED
BY "CLR ALL" AT START OF TEST. (NOTE! "CLR ALL" GENERATED
BY KEY START ON MOST PDP-8/S OR KEYS CLEAR AND THEN
CONTINUE ON A PDP-8/E, 8/F OR 8/M.)

C, TST4

VERIFY ALL DRIVES ARE SET TO "LOAD" OR WERE
DISCONNECTED FROM CONTROL AT START OF TEST,

D, TST5

VERIFY "DSKP" DISK SKIP IOT DOESN'T AFFECT AC REGISTER,

E, TST6-TST9

VERIFY THAT IOTS "DLCA LOAD CURRENT ADDRESS", "DLDC LOAD
COMMAND", "DLAG LOAD DISK ADDRESS", AND "DCLR CLEAR CONTROL
FUNCTION" DO CLEAR THE AC REGISTER AFTER THEIR EXECUTION,

F, TST10-TST14

VERIFY LOADING, CLEARING, AND READING THE COMMAND REGISTER
USING VARIOUS DATA PATTERNS

G, TST15-TST28

VERIFY LOADING, CLEARING, AND READING THE DISK ADDRESS
REGISTER USING VARIOUS DATA PATTERNS,

H, TST29-TST30

VERIFY LOADING, CLEARING, AND READING THE COMMAND REGISTER
USING VARIOUS DATA PATTERNS

- I, TST31

VERIFY LOADING, CLEARING, AND READING THE DISK ADDRESS REGISTER.
- J, TST32-TST33

VERIFY "DMAN MAINTENANCE IOT" DOES NOT EFFECT AC REGISTER.
- K, TST34-TST35

VERIFY MAINTENANCE MODE CAN BE SET AND CLEARED CORRECTLY.
- L, TST36-TST40

VERIFY LOADING, READING, AND CLEARING THE CRC REGISTER USING VARIOUS DATA PATTERNS.
- M, TST41-TST48

VERIFY LOADING, READING, AND CLEARING THE BUFFER REGISTERS USING VARIOUS DATA PATTERNS.
- N, TST49-TST76

VERIFY SETTING AND CLEARING VARIOUS STATUS REGISTER BITS, ERROR FLAGS, SKIP FUNCTIONS, AND INTERRUPT FUNCTIONS.
- O, TST77-TST100

VERIFY READ AND WRITE MAINTENANCE DATA BREAKS TO AND FROM CONTROL USING VARIOUS DATA PATTERNS IN CURRENT FIELD.
- P, TST101-TST105

VERIFY READ AND WRITE MAINTENANCE DATA BREAKS TO AND FROM CONTROL USING VARIOUS DATA PATTERNS IN ALL EXISTING EXTENDED R/W MEMORY FIELDS.
- Q, TYPE PASS COMPLETE AND LOOP TO TST4;
- 10, PROGRAM LISTING

```

    /
    /END CHICKENS CONTROL TEST
    /
    /END PROGRAM HUTS
    /
    0200 4413 07 003 VEHICLE INFO INTERRUPT
    0201 7274 070104 /SK1P TRAP FOR DCLE
    0202 4445 070104 /SK1P TRAP FOR DLCA
    0203 4457 070104 /SK1P TRAP FOR DLCA
    0204 4448 070104 /SK1P TRAP FOR DPLT
    0205 4473 070105 /SK1P TRAP FOR DPLC
    0206 4510 070107 /SK1P TRAP FOR DMAN
    0207 4523 070107 /SK1P TRAP FOR DMAN
    0208 5762 070107 UNRECOVERABLE ERROR HALT
    0209 7286 070107 END OF TEST HALT
    0210 7124 070107 HALT FROM SW4xx
    0211 7286 070107 /INT CHANGE HALT
    /
    4241 051457401 051457401 /SK1P ON TRANSFER DONE OR ERROR
    4242 701457402 701457402 /CLEAR CTRK CONTROL LOGIC
    4243 701457403 701457403 /LOAD ADDRESS AND GO
    4244 701457404 701457404 /LOAD CURRENT ADDRESS
    4245 701457405 701457405 /HEAD STATUS REGISTER
    4246 701457406 701457406 /LOAD COMMAND REGISTER
    4247 701457407 701457407 /LOAD MATCHMAP
    /
    4300 1070457408 1 XCHANG
    4302 1070457408 1 XEN1S
    4303 1070457408 1 XMAN1
    4305 1070457408 1 XMAN2
    4307 1070457408 1 XERPC
    4308 1070457408 1 XERRC
    4309 1070457408 1 XIOX
    4310 1070457408 1 XIOX1
    4311 1070457408 1 XIOX2
    4313 1070457408 1 XCRNF2
    4314 1070457408 1 XRCF
    4315 1070457408 1 XRCF2
    4316 1070457408 1 XRCF4
    4317 1070457408 1 XRCF5
    4318 1070457408 1 XRCF6
    4319 1070457408 1 XRCF7
    4320 1070457408 1 XRCF8
    4321 1070457408 1 XRCF9
    4322 1070457408 1 XRCF10
    4323 1070457408 1 XRCF11
    4324 1070457408 1 XRCF12
    4325 1070457408 1 XRCF13
    4326 1070457408 1 XRCF14
    4327 1070457408 1 XRCF15
    4328 1070457408 1 XRCF16
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    4331 1070457408 1 XRCF19
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    4350 1070457408 1 XRCF38
    4351 1070457408 1 XRCF39
    4352 1070457408 1 XRCF40
    4353 1070457408 1 XRCF41
    4354 1070457408 1 XRCF42
    /
    0202 82
    /

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    0200 7608 07
    0201 7271 0701
    0202 7282 0702
    0203 7273 0703
    /
    0204 7274 0704
    /
    0205 7282 0705
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    0206 7283 0706
    /
    0207 7284 0707
    /
    0208 7285 0708
    /
    0209 7286 0709
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    0210 7287 0710
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    0211 7288 0711
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    0212 7289 0712
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    0245 7292 0745
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    0246 7293 0746
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    0247 7294 0747
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    0248 7295 0748
    /
    0249 7296 0749
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    0250 7297 0750
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    0251 7298 0751
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    0252 7299 0752
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    0253 7270 0753
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    0254 7271 0754
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    0255 7272 0755
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    0262 7279 0762
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    0263 7280 0763
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    0265 7282 0765
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    0266 7283 0766
    /
    0267 7284 0767
    /
    0268 7285 0768
    /
    0269 7286 0769
    /
    0270 7287 0770
    /
    0271 7288 0771
    /
    0272 7289 0772
    /
    0273 7270 0773

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8274 2817 <80067, 2287
8275 2478 <84201, 2478
8276 1728 <12861, 1848
8277 7626 <22801, 2626
8192 3777 <37771, 3777
8193 4890 <48901, 4890
8194 7388 <73881, 7388
8195 5776 <57761, 5776
8196 7775 <77751, 7775
8197 2298 <77921, 7798
8198 7748 <77481, 7748
8199 3678 <83781, 3678
8200 2077 <80771, 2077
8201 1377 <80771, 2077
8202 2177 <81771, 2177
8203 2525 <25251, 2525
8204 5252 <52521, 5252
8205 1741 <57411, 1740
8206 1737 <57371, 1737
8207 7747 <77171, 7747
8208 4180 <41801, 4178
8209 7562 <75281, 7562
8210 3288 <50281, 3288
8211 5777 <57771, 5777
8212 7774 <77141, 7774
8213 7773 <77131, 7773
8214 7771 <77121, 7771
8215 7772 <77111, 7772
8216 7771 <77111, 7771
8217 7777 <77771, 7777
8218 7777 <77771, 7777
/
D011M34
/
8127 7774 <4, +4
8130 7773 <3, +3
8131 7771 <7, +7
8132 7754 <12, +12
8133 7750 <16, +16
8134 7722 <48, +48
8135 7672 <125, +125
8136 7581 <171, +171
8137 7401 <255, +255
8140 7324 <328, +328
/
D011M34
/
8141 7817 <20171, 2017
8142 7215 <22151, 2215
8143 4212 <22121, 2212
8144 4271 <22711, 2271
8145 6244 <24441, 6244
8146 5473 <34731, 5473
8147 3776 <48951, 3776+5, -1
8150 2023 RECALL, 2
8151 2022 RECALL, 2
8152 2021 SHORT1, 2
8153 2022 TENTH1, 2
8154 2020 TENTH2, 2

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8155 7232 10143, 2
8156 1282 10144, 2
/
8157 2072 GDB641, 2
8158 1072 GDB621, 2
8161 1026 GDB101, 2
8162 1028 GDB102, 2
8163 2072 GDB64, 2
8164 1078 GDB60, 2
8165 1028 GDB62, 2
8166 1020 GDB60, 2
8167 3280 ADREL1, 2
8172 4202 CTREL1, 2
8171 1532 ADREL1, 2
8172 5220 HOLYMA, 2
8173 3220 FLOWMA, 2
8174 2220 STCMA, 2240
8175 1001 SAVEM1, 2
8176 7041 XSET1, SETUP
/
#282
/
VISLTH POINTERS FOR AMOUNT OF EXTENDED
BLOCKS OF MEMORY, INTERRUPT SERVICE, AND CURRENT
FIELD1,
/
8270 5283 501, 143 REGULAR DIAGNOSTIC
8271 5224 501, 143 />0 MANUAL SCOPE TEST
8272 5422 501, 143 />0 TEL CHANGE ROUTINE
8273 6224 501
8274 3172 TAD1 HOMEPA
8275 1172 TAD1 HOMEVA
8276 1144 TAD1 KCDP
8277 3212 TAD1 PRSFLO
8278 7372 PROFLD, 143 AMAKE CRDT
8279 4576 JPS1 XSET
8280 1173 TAD1 FLOWMAX
8281 5640 SCA CDA
8282 5217 JPS1 +43
8283 1926 TAD1 27777
8284 3175 DCA SAVEHD
8285 7654 LAS
8286 3065 ANU KB307
8287 7242 CMA
8288 3173 DCA FLOWMAX
AMAKE R=11
ASAVE AMOUNT OF EXTENDED MEMORY
/
VERIFY THAT THE DISK MOTOR IS OFF, THE
STATS REGISTER SHOULD ONLY CONTAIN NOT READY TO
SEEK, READY, OR WRITE AND NOT DISK FILE READY,
INITIALIZATION SHOULD HAVE CLEARED ALL OTHER BITS
/
8283 5150 DCA 4581 /GET EXPECTED STATUS
8284 3174 TAD STCMA /SETUP TFS* HANDLER
8285 3168 DCA GORESS

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```

7206 1150 TST6 TAG REG1           /GET AC VALUE
7207 4434 TST6 REG1           /SET AC, COMPARE REGISTER
7208 4432 ACMP1              /CHECK RESULTS
7209 4427 MERRR              /AC, 0, 4896 LOOPS
7210 4430 ERROR              /ERROR, "INITIALIZED" CLEAR STATUS
7211 4430 TST6               /REGISTER FAILED
7212 4430 5200               /SCOPE LOOP POINTER
7213 4425 5200               /TEXT PRINTED

/ VERIFY THAT SKIP CONDITIONS WERE CLEARED
/ BY "INITIALIZED" ON START OF TEST,
/ TST10 DSXSKP             /CLEAR MASKED TDT
7214 4440 MERRR              /DSXSKP, 4896 LOOPS
7215 4422 ERROR              /ERROR, "INITIALIZED" CLEAR
7216 4432 TST11             /SKIP CONDITIONS
7217 235 9200               /SCOPE LOOP POINTER
7218 4426 9200               /TEXT PRINTED

/ VERIFY THAT INTERRUPT REQUESTS WERE
/ CLEARED BY "INITIALIZED" AT START OF TEST
/ TST12 122481             /GET AC1 FOR INT,
7219 124000 MERRR              /INT, 0, 4896 LOOPS
7220 4429 TST13             /ERROR, "INITIALIZED" CLEAR
7221 123200 INT1              /INT1 CONDITION
7222 1242 TST14             /SCOPE LOOP POINTER
7223 1247 1247               /TEXT PRINTED

/ VERIFY THAT COMMAND REGISTER WAS CLEARED
/ BY "INITIALIZED" AT START OF TEST, READ COMMAND
/ REGISTERED WITH ROMAN MAINTENANCE INT
/ TST15 2140 50752             /SETUP COMMAND REGISTER
7224 4425 50752             /READ COMMAND REGISTER
7225 1275 50752             /AC SHOULD BE 0
7226 2658 50752             /AC ONE, 4896 LOOPS
7227 4427 MERRR              /ERROR, "INITIALIZED" CLEAR
7228 4433 50752             /COMMAND REGISTER
7229 250 50752             /SCOPE LOOP POINTER
7230 1211 50752             /TEXT PRINTED

/ VERIFY THAT ALL DRIVES IN CONTROL ARE OFF
/ THE STATUS SHOULD BE ZERO WHEN DRIVES ARE SELECTED
/ TST16 TAG ST500             /EXPECTED STATUS
7231 1174 TCA 50802             /SET AC, COMPARE REGISTER
7232 1168 TCA 50802             /CLEAR CLEAR CONTROL
7233 7301 TCA 50802             /AC ONE, 4896 LOOPS
7234 4445 TCA 50802             /AC ONE, 4896 LOOPS
7235 1152 TAG REG1             /GET AC VALUE
7236 4442 TCA 50802             /LOAD COMMAND
7237 4434 RUSTAT              /READ STATUS
7238 4432 ACMP1              /CHECK RESULTS
7239 4427 MERRR              /AC, 0, 4896 LOOPS
7240 4430 TST17             /SCOPE LOOP POINTER
7241 4212 4212               /TEXT PRINTED

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7242 4430 MERRR              /ERROR, STATUS
7243 4425 50802             /SCOPE LOOP POINTER
7244 4432 50802             /TEXT PRINTED

/ VERIFY THAT INT "DSXSKP" DOES NOT AFFECT
/ AC REGISTER, TRY ALL COMBINATIONS IN AC,
/ TST18 TAG REG1             /GET AC VALUE
7245 1150 TCA 50802             /SET AC, COMPARE REGISTER
7246 1150 TCA 50802             /CLEAR MASKED TDT
7247 1150 DSXSKP             /CLEAR DSXSKP
7248 1150 50802             /AC, 0, 4896 LOOPS
7249 4441 50802             /AC, 0, 4896 LOOPS
7250 7890 50802             /AC, 0, 4896 LOOPS
7251 4432 ACMP1              /ACMP1, COMPARE TO 50802
7252 4427 MERRR              /AC, 0, 4896 LOOPS
7253 4432 RUSTAT              /AC, 0, 4896 LOOPS
7254 4432 ACMP1              /ACMP1, DSXSKP CHANGED AC
7255 4427 TST19             /SCOPE LOOP POINTER
7256 4212 4212               /TEXT PRINTED

/ VERIFY THAT "MOLCA" LOAD CURRENT ADDRESS
/ REGISTER CLEARS THE AC, TRY ALL COMBINATIONS IN AC,
/ TST20 TCA 50802             /SETUP COMPARE REGISTER
7257 1152 TAG REG1             /GET AC VALUE
7258 1152 50802             /LOAD CURRENT ADDRESS MOLCA
7259 1443 TCA 50802             /AC, 0, COMPARE TO 50802
7260 1443 MOLCA              /AC, 0, 4896 LOOPS
7261 4432 ACMP1              /ACMP1, DSXSKP CHANGED AC
7262 4427 MERRR              /AC, 0, 4896 LOOPS
7263 4432 RUSTAT              /AC, 0, 4896 LOOPS
7264 4432 ACMP1              /ACMP1, DSXSKP CHANGED AC
7265 4427 TST21             /SCOPE LOOP POINTER
7266 4212 4212               /TEXT PRINTED

/ VERIFY THAT "TLOC" LOAD COMMAND REGISTER
/ CLEARS THE AC, TRY ALL COMBINATIONS IN AC,
/ TST22 TAG REG1             /GET AC VALUE
7267 1152 TLOC REG1             /TLOC, 0, DSXSKP COMMAND REGISTER
7268 4442 TLOC REG1             /CHECK AC, COMPARE TO REG1
7269 4432 ACMP1              /AC, 0, 4896 LOOPS
7270 4427 MERRR              /AC, 0, 4896 LOOPS
7271 4432 TCA 50802             /AC, 0, 4896 LOOPS
7272 4430 50802             /AC, 0, 4896 LOOPS
7273 4427 TST23             /SCOPE LOOP POINTER
7274 4212 4212               /TEXT PRINTED

/ VERIFY THAT "MOLCA" CLEARS THE AC REGISTER
/ TRY ALL COMBINATIONS IN AC,
/ TST24 TCA 50802             /CLEAR DSXSKP
7275 1151 TCA 50802             /GET DATA
7276 4444 TCA 50802             /LOAD DSXSKP ADDRESS
7277 4432 ACMP1              /CHECK RESULTS
7278 4427 MERRR              /AC, 0, 4896 LOOPS
7279 4432 TCA 50802             /AC, 0, 4896 LOOPS
7280 4430 50802             /AC, 0, 4896 LOOPS
7281 314 50802             /AC, 0, 4896 LOOPS
7282 4212 50802             /AC, 0, 4896 LOOPS
7283 4212 TST25             /SCOPE LOOP POINTER
7284 4212 4212               /TEXT PRINTED

/ VERIFY THAT INT "MOLCA" CLEARS THE AC
/ TST26 TCA 50802             /CLEAR DSXSKP
7285 1151 TCA 50802             /GET DATA
7286 4444 TCA 50802             /LOAD DSXSKP ADDRESS
7287 4432 ACMP1              /CHECK RESULTS
7288 4427 MERRR              /AC, 0, 4896 LOOPS
7289 4432 TCA 50802             /AC, 0, 4896 LOOPS
7290 4430 50802             /AC, 0, 4896 LOOPS
7291 314 50802             /AC, 0, 4896 LOOPS
7292 4212 50802             /AC, 0, 4896 LOOPS
7293 4212 TST27             /SCOPE LOOP POINTER
7294 4212 4212               /TEXT PRINTED

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 8427 4271 4281 /TEXT POINTERS
 /VERIFY THAT THE COMMAND REGISTER
 THE LOADED AND WHEN SHIFTED INTO THE LOWER
 WORD HOPPER, THEY ALL COMBINATIONS.
 /
 8428 1171 TST181 TAG 8682 /SETUP AC VALUE
 8429 4442 LOCMD REG1 /LOAD COMMAND REGISTER
 8430 1153 TAG REG01 /SETUP COMPARE REGISTER
 8431 3367 DCA 10AEC2 /
 8432 1152 TAG REG01 /CLEAR COMMAND REGISTER
 8433 4422 LOCMD /READ COMMAND REGISTER
 8434 4430 REG01 /CHECK AC, COMPARE TO 00REG01
 8435 4432 ACH001 /AC CLK, 4274 LOOPS
 8436 4427 VER001 /VEROR, LOAD OF HEAD
 8437 4432 ERTR /COMMAND REGISTER
 8438 4281 TST182 /ACCRUE LOAD POINTER
 8439 4281 /TEXT POINTER
 /
 /VERIFY THAT DOLP DOES NOT CLEAR COMMAND
 /REGISTER WHEN AC100E AND AC1101
 /
 8440 1156 TST183 TAG 8684 /LOAD COMMAND REGISTER
 8441 4443 LOCMD REG02 /
 8442 1151 TAG REG02 /SETUP COMPARE REGISTER
 8443 3152 DCA 00REG02 /
 8444 1151 TAG REG02 /CLEAR COMMAND REGISTER
 8445 4442 LOCMD /CLEAR ALL
 8446 4445 REG01 /READ COMMAND REGISTER
 8447 4435 ACH001 /CHECK AC, COMPARE TO 00REG01
 8448 4432 VER001 /AC CLK, 4275 LOOPS
 8449 4432 ERTR /VEROR, DOLP CLEAR COMMAND
 8450 4432 ERTR /REGISTER WHEN AC100E + AC1101
 8451 4281 TST184 /REGISTE LOAD POINTER
 8452 4281 /
 /VERIFY THAT DOLP DOES CLEAR COMMAND
 /REGISTER WHEN AC100E AND AC1101
 /
 8453 1156 DCA 00REG02 /SETUP COMPARE REGISTER
 8454 1152 TST184 TAG REG01 /LOAD COMMAND REGISTER
 8455 4442 LOCMD /ENABLE CLEAR CONTROL
 8456 7301 SNA CLA TAG /CLEAR ALL
 8457 4445 TEMPAL /READ COMMAND REGISTER
 8458 4435 LOCMD /CHECK AC, 3=0 LS EQUAL 0
 8459 7552 SNA CLA /AC CLK, DOLP 4276
 8460 4427 VER001 /VEROR, DOLP CLEAR COMMAND
 8461 4432 ERTR /REGISTER WHEN AC100E+AC1101
 8462 4442 TST185 /REGISTE LOAD POINTER
 8463 4281 /TEXT POINTER
 /
 /VERIFY THAT DOLP DOES LOAD THE SURFACE AND SECTOR

PA 10 *142 2024384-73 1117 PAGE 149
 2534 1473 ERMOA
 2535 547 TST15
 2536 1162 ERMOA
 /
 /NOTICE THAT THE DISK ADDRESS REGISTER CAN BE LOADED
 AND SHIFTED TO LOWER DATA BUFFER WITH THE MAINTENANCE
 ADT, USE DATA PATTERN 2820 + 5252,
 SHIFT THE SURFACE AND SECTOR FROM THE SURFACE AND SECTOR
 REGISTER, SHIFT THE LOWER CYLINDER BITS FROM THE CRT REGISTER,
 /
 2537 7371 TST15 DLA CBL 180
 2538 4455 DLAHLL
 2539 1192 TAG K6034
 2540 7318 TAG K6034
 2541 1192 TAG K6034
 2542 7318 TAG K6034
 2543 7570 SCL CBL
 2544 7224 CLA CMA
 2545 7224 TAG UDPER2
 2546 1162 TAG 574C92
 2547 7742 CMA
 2548 1162 CLA UDPER2
 2549 1162 CLA UDPER2
 2550 1162 CLA UDPER2
 2551 1162 CLA UDPER2
 2552 4454 CLA UDPER2
 2553 4452 CLA UDPER2
 2554 4452 CLA UDPER2
 2555 4452 CLA UDPER2
 2556 4452 CLA UDPER2
 2557 1162 CLA UDPER2
 2558 4452 CLA UDPER2
 /
 /NOTICE THAT THE DISK ADDRESS REGISTER CAN BE LOADED
 AND SHIFTED TO LOWER DATA BUFFER WITH THE MAINTENANCE
 ADT, USE DATA PATTERN 2820 + 5252,
 SHIFT THE SURFACE AND SECTOR FROM THE SURFACE AND SECTOR
 REGISTER, SHIFT THE LOWER CYLINDER BITS FROM THE CRT REGISTER,
 /

| | | | |
|------|------|-------------------|---------------|
| 2561 | 7371 | TST15 DLA CBL 180 | ADTR MCLR ALL |
| 2562 | 4455 | DLAHLL | |
| 2563 | 1172 | TAG K6034 | |
| 2564 | 7110 | TAG K6034 | |
| 2565 | 7647 | SCL CBL | |
| 2566 | 1113 | CLA CMA | |
| 2567 | 1113 | CLA K6034 | |
| 2568 | 1161 | CLA UDPER2 | |
| 2569 | 1161 | CLA UDPER2 | |
| 2570 | 7342 | CMA | |
| 2571 | 4454 | CLAD | |
| 2572 | 1160 | CLA UDPER2 | |
| 2573 | 4454 | CLAD | |
| 2574 | 1160 | CLA UDPER2 | |
| 2575 | 4454 | ADTR | |
| 2576 | 4452 | ADTR | |
| 2577 | 4452 | UDPER2 | |
| 2578 | 4452 | UDPER2 | |
| 2579 | 4452 | UDPER2 | |
| 2580 | 1161 | UDPER2 | |
| 2581 | 1162 | UDPER2 | |

/

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VERIFY THAT THE DISK ADDRESS REGISTER
IS SET WHEN READ AND WRITTEN INTO THE BUFFER
DATA BUFFER, THE ALL COMBINATIONS IN PC
SELECT THE SURFACE AND SECTOR FROM THE SURFACE AND SECTOR
REGISTER, SET THE LOWER CYLINDER BITS FROM THE REGISTERS,
/

| | | | | |
|------|------|-------|--------|------------------------------|
| 8694 | 1160 | TST19 | REG1 | SET PC VALUE |
| 8695 | 1162 | REG1 | 000000 | RESET COMPARE REGISTER |
| 8696 | 1166 | TAC | REG1 | LOAD DISK ADDRESS REGISTER |
| 8697 | 4444 | LDA00 | | HEAD DISK ADDRESS REGISTER |
| 8612 | 4446 | P2407 | | CHECK AC, COMPARE TO ADDRESS |
| 8611 | 4432 | ACMP1 | | ACQ 0, K1, LOAD 4295 TIMER |
| 8612 | 4427 | MRERR | | ERRR, LOAD OF HEAD DISK |
| 8613 | 4432 | LEH00 | | ADDRESS REGISTER |
| 8614 | 1604 | TST19 | | ADDORE, LOAD POINTERS |
| 8675 | 4182 | REG1 | | TEXT POINTERS |

/

VERIFY THAT DISK ADDRESS NOT AFFECT THE SURFACE
AND SECTOR WHEN REGISTERS = ALL-1

| | | | | |
|------|------|-------|--------|-------------------------------|
| 8614 | 1152 | TST19 | REG1 | SET PC VALUE |
| 8617 | 1162 | REG1 | 000000 | RESET COMPARE REGISTER |
| 8622 | 1151 | TAC | REG1 | ACQ VALUE, COMPLEMENT OF REG1 |
| 8621 | 4444 | LDA00 | | LOAD DISK ADDRESS |
| 8622 | 1152 | TAC | REG1 | LOAD DISK ADDRESS |
| 8623 | 4444 | LDA00 | | LOAD DISK ADDRESS |
| 8624 | 4445 | MRERR | | HEAD DISK ADDRESS |
| 8625 | 4442 | P2407 | | CHECK AC, COMPARE TO SURFACE |
| 8627 | 4427 | MRERR | | ACQ 0, K1, LOAD 4095 TIMES |
| 8630 | 4430 | LEH00 | | ERRR, LOAD OF HEAD DISK |
| 8631 | 1616 | TST22 | | ADDRESS OF TAC, CLEAR |
| 8632 | 4182 | REG1 | | ADDORE, LOAD POINTERS |

/

VERIFY THAT LOWER CYLINDER, SURFACE AND SECTOR
REGISTER WHEN REG18= ALL-1 + AC1=1

| | | | | |
|------|------|--------------|--------|-------------------------------|
| 8633 | 1152 | TAC | REG1 | SET PC VALUE |
| 8634 | 1160 | REG1 | 000000 | RESET COMPARE REGISTER |
| 8635 | 1162 | TAC | REG1 | ACQ VALUE, COMPLEMENT OF REG1 |
| 8636 | 4444 | LDA00 | | LOAD DISK ADDRESS |
| 8637 | 1151 | CLA, CLL TAC | | CLEAR, TAC ALU HIT |
| 8642 | 4445 | MRERR | | HEAD DISK ADDRESS |
| 8641 | 4442 | P2407 | | CHECK RFS,LTS |
| 8642 | 4432 | ACMP1 | | ACQ 0, K1, LOAD 4896 |
| 8643 | 4427 | MRERR | | ERRR, LOAD, HEAD, OR CLEAR |
| 8644 | 4430 | ERROR | | ADDSR ADDRESS |
| 8645 | 1604 | TST21 | | ADDORE, LOAD POINTERS |
| 8646 | 4182 | REG1 | | TEXT POINTERS |

/

VERIFY THAT THE CRC CAN BE LOADED BY "BLAD"

AND "BLDR", USE DATA PATTERN 3225 + 3232.

/

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THIS WILL VERIFY THAT THE CRC CAN BE LOADED
BY THE EXTENDED CYLINDER BIT IN THE COMMAND REGISTER
BY THE HOLEATE 1011.

| | | | | |
|------|------|---------|--------------|------------------------------|
| 7642 | 7324 | TST21 | CLA, CLL TAC | ADDSR |
| 7550 | 4445 | MRERR | | READ CRC |
| 7551 | 1150 | TAC | REG1 | SET PC |
| 7552 | 7110 | CLL PAR | | LINK FOR EXTENDED BIT |
| 7553 | 7578 | SEL CLA | | USE DATA 3225 IF LINK IS SET |
| 7554 | 2242 | CLA CMA | | |
| 8655 | 1120 | AND | 47747 | RESET COMPARE # 1 |
| 8656 | 3168 | SCA | 000000 | LINK FOR EXTENDED BIT |
| 8657 | 7022 | RA0 | | RESET COMPARE REGISTER |
| 8662 | 3157 | SCA | 000001 | SET DATA |
| 8661 | 1157 | TAC | 000001 | SET PC |
| 8662 | 4442 | LCM0 | | LOAD CRC |
| 8663 | 1160 | TAC | 000002 | LOAD CRC |
| 8664 | 4444 | LOADC | | READ CRC |
| 8665 | 4446 | RCRD | | READ CRC |
| 8666 | 4433 | ACMP2 | | CHECK RFS,LTS |
| 8667 | 4427 | MERRR | | ACQ 0, K1, LOAD |
| 7570 | 4430 | ERROR | | ERRR, CRC REGISTER |
| 8671 | 7647 | TST22 | | ADDORE, LOAD POINTERS |
| 8672 | 5024 | REG1 | | TEXT POINTERS |

/

VERIFY THAT THE CRC CAN BE LOADED BY "BLAD"

AND "BLDR", USE DATA PATTERN 3225 + 3232.

THIS WILL VERIFY THAT THE CRC CAN BE LOADED
BY THE EXTENDED CYLINDER BIT IN THE COMMAND REGISTER
BY THE HOLEATE 1011.

| | | | | |
|------|------|---------|--------------|------------------------------|
| 8673 | 7321 | TST21 | CLA, CLL TAC | ADDSR |
| 8674 | 4445 | MRERR | | READ CRC |
| 8675 | 1152 | TAC | REG1 | SET PC |
| 8676 | 7417 | CLL PAR | | LINK FOR EXTENDED BIT |
| 8677 | 7630 | SEL CLA | | USE DATA 3225 IF LINK IS SET |
| 8772 | 1113 | TAC | 42525 | RESET COMPARE # 1 |
| 8771 | 1113 | SCA | 42525 | LINK FOR EXTENDED BIT |
| 8772 | 7126 | AND | 47742 | RESET COMPARE REGISTER |
| 8793 | 1140 | SCA | 000002 | SET DATA |
| 8795 | 7024 | RA0 | | LOAD CRC |
| 8725 | 1157 | SCA | 000001 | LOAD CRC |
| 8726 | 1157 | TAC | 000001 | SET PC |
| 8727 | 4442 | LCM0 | | LOAD CRC |
| 8713 | 1160 | TAC | 000002 | LOAD CRC |
| 8711 | 4444 | LOADC | | READ CRC |
| 8712 | 4445 | RCRD | | READ CRC |
| 8713 | 4433 | ACMP2 | | CHECK RESULTS |
| 8714 | 4427 | SCA, P | | ACQ 0, K1, LOAD |
| 8715 | 4432 | LEH00 | | ERRR, CRC REGISTER |
| 8716 | 7673 | TST22 | | ADDORE, LOAD POINTERS |
| 8717 | 5004 | REG1 | | TEXT POINTERS |

/

VERIFY THAT THE CRC CAN BE LOADED BY "BLAD"

AND "BLDR", USE DATA PATTERN ALL COMBINATIONS.

PAGE 1 114K 2374494-72 1117 PAGE 1913
 /
 2757 7371 ST3241 CLR CCR TAG
 2772 44460 CLRVAL REG04
 1771 1184 TAD REG04
 1772 71100 CLR REG04
 1773 1637 SCL REG04
 2754 1113 TAD K2525
 2775 1113 TAD K2525
 1776 178 ALU K7747
 1777 7180 MOA P01602
 1792 1224 PBL
 1211 1557 STA GORE61
 1202 1557 TAD GORE61
 1213 1442 LDMH
 1214 1162 TAD GORE62
 1202 4446 LOAD
 1798 1151 TAD REG2
 1797 4434 PBLSTG
 1212 1151 TAD REG2
 1211 4441 CKSSKP
 1112 7829 MOA
 1033 4450 PBLUF
 1114 1151 TAD MEG2
 1115 1443 MOUR
 1215 1181 TAD REG2
 1217 4442 LDMH
 1222 1150 TAD REG1
 1211 4421 CHLF
 1222 4446 RBLNC
 1223 4433 4550M2
 1224 4427 NCH4R3
 1223 4432 RBLNC
 1225 1767 TS126
 1227 4224 K744
 /
 /VERIFY THAT WRITE LOCK INHIBITS LOAD ADDRESS
 /XAHN 1718 BYT,
 /
 1237 751 ST3241 CLR CCR TAG
 1231 4465 CLRVAL REG04
 1232 7142 SCL REG04
 1233 1180 TAD REG04
 1234 1644 LDMH
 1235 1277 TAD K2327
 1236 4442 LDMH
 1237 1151 TAD REG2
 1232 4444 SCL REG04
 1231 4446 40100
 1242 4432 K7747
 1243 4427 4550M2
 1244 4432 TAD K2429
 1245 1350 TS127
 1246 4112 K122
 /
 /VERIFY THAT THE C1SA ADDRESS REGISTER IS KEY

| ALU | VAL | OPERATION | VAL | REGISTERS |
|--|------|-----------|------|-----------|
| DIRECTLY OR THROUGH REGISTER ADDRESS, POLLED, BYPASS FOR PROGRAM OR DATA PATTERN AND FORMATTING. | | | | |
| 1247 | 1152 | PST25 | 140 | REG1 |
| 1248 | 1152 | | 000 | REG0,PC |
| 1249 | 1152 | | 000 | REG1 |
| 1250 | 2444 | | 0000 | REG2 |
| 1251 | 1151 | | 000 | REG3 |
| 1252 | 1123 | | 000 | REG4 |
| 1253 | 44*2 | | 0000 | REG5 |
| 1254 | 1151 | | 000 | REG6 |
| 1255 | 44*2 | | 0000 | REG7 |
| 1256 | 1151 | | 000 | REG8 |
| 1257 | 44*2 | | 0000 | REG9 |
| 1258 | 1151 | | 000 | REG10 |
| 1259 | 44*2 | | 0000 | REG11 |
| 1260 | 7000 | | 000 | REG12 |
| 1261 | 4434 | | 0000 | REG13 |
| 1262 | 7000 | | 000 | REG14 |
| 1263 | 4434 | | 0000 | REG15 |
| 1264 | 1151 | | 000 | REG16 |
| 1265 | 4421 | | 0000 | REG17 |
| 1266 | 4455 | | 0000 | REG18 |
| 1267 | 1152 | | 0000 | REG19 |
| 1268 | 4445 | | 0000 | REG20 |
| 1269 | 4445 | | 0000 | REG21 |
| 1270 | 1152 | | 0000 | REG22 |
| 1271 | 4445 | | 0000 | REG23 |
| 1272 | 1152 | | 0000 | REG24 |
| 1273 | 4427 | | 0000 | REG25 |
| 1274 | 1152 | | 0000 | REG26 |
| 1275 | 1152 | | 0000 | REG27 |
| 1276 | 4434 | | 0000 | REG28 |
| DIRECTLY OR THROUGH REGISTER ADDRESS, BYPASS FOR PROGRAM OR DATA PATTERN AND FORMATTING. | | | | |
| 1277 | 7001 | PST24 | 140 | REG1 |
| 1278 | 2445 | | 0000 | REG0,PC |
| 1279 | 1152 | | 000 | REG1 |
| 1280 | 2445 | | 000 | REG2 |
| 1281 | 1152 | | 000 | REG3 |
| 1282 | 1152 | | 000 | REG4 |
| 1283 | 1152 | | 000 | REG5 |
| 1284 | 4442 | | 0000 | REG6 |
| 1285 | 1152 | | 000 | REG7 |
| 1286 | 2444 | | 0000 | REG8 |
| 1287 | 1152 | | 000 | REG9 |
| 1288 | 4445 | | 0000 | REG10 |
| 1289 | 1151 | | 000 | REG11 |
| 1290 | 4401 | | 0000 | REG12 |
| 1291 | 7000 | | 000 | REG13 |
| 1292 | 4434 | | 0000 | REG14 |
| 1293 | 1152 | | 0000 | REG15 |
| 1294 | 1152 | | 0000 | REG16 |
| 1295 | 4445 | | 0000 | REG17 |
| 1296 | 1152 | | 0000 | REG18 |
| 1297 | 4445 | | 0000 | REG19 |
| 1298 | 1152 | | 0000 | REG20 |
| 1299 | 4445 | | 0000 | REG21 |
| 1300 | 1152 | | 0000 | REG22 |
| 1301 | 4445 | | 0000 | REG23 |
| 1302 | 1152 | | 0000 | REG24 |
| 1303 | 4445 | | 0000 | REG25 |
| 1304 | 1152 | | 0000 | REG26 |
| 1305 | 4421 | | 0000 | REG27 |
| 1306 | 4455 | | 0000 | REG28 |
| 1307 | 7000 | | 0000 | REG29 |
| 1308 | 4445 | | 0000 | REG30 |
| 1309 | 1152 | | 0000 | REG31 |
| 1310 | 4445 | | 0000 | REG32 |
| 1311 | 1152 | | 0000 | REG33 |
| 1312 | 4445 | | 0000 | REG34 |
| 1313 | 7000 | | 0000 | REG35 |
| 1314 | 4434 | | 0000 | REG36 |
| 1315 | 1151 | | 000 | REG37 |
| 1316 | 4421 | | 000 | REG38 |
| 1317 | 4455 | | 000 | REG39 |
| 1318 | 1152 | | 000 | REG40 |
| 1319 | 4445 | | 000 | REG41 |
| 1320 | 1152 | | 000 | REG42 |
| 1321 | 4445 | | 000 | REG43 |
| 1322 | 1152 | | 000 | REG44 |
| 1323 | 4445 | | 000 | REG45 |
| 1324 | 4434 | | 000 | REG46 |
| 1325 | 1152 | | 000 | REG47 |
| 1326 | 4434 | | 000 | REG48 |
| 1327 | 1152 | | 000 | REG49 |
| 1328 | 4434 | | 000 | REG50 |
| DIRECTLY OR THROUGH REGISTER ADDRESS, BYPASS FOR PROGRAM OR DATA PATTERN AND FORMATTING. | | | | |
| 1329 | 1152 | PST25 | 140 | REG1 |
| 1330 | 2445 | | 0000 | REG0,PC |
| 1331 | 1152 | | 000 | REG1 |
| 1332 | 2445 | | 000 | REG2 |
| 1333 | 1152 | | 000 | REG3 |
| 1334 | 4442 | | 0000 | REG4 |
| 1335 | 1152 | | 000 | REG5 |
| 1336 | 2444 | | 0000 | REG6 |
| 1337 | 1152 | | 000 | REG7 |
| 1338 | 4445 | | 0000 | REG8 |
| 1339 | 1151 | | 0000 | REG9 |
| 1340 | 4401 | | 0000 | REG10 |
| 1341 | 7000 | | 0000 | REG11 |
| 1342 | 4434 | | 0000 | REG12 |
| 1343 | 1152 | | 0000 | REG13 |
| 1344 | 1152 | | 0000 | REG14 |
| 1345 | 4445 | | 0000 | REG15 |
| 1346 | 1152 | | 0000 | REG16 |
| 1347 | 4445 | | 0000 | REG17 |
| 1348 | 1152 | | 0000 | REG18 |
| 1349 | 4445 | | 0000 | REG19 |
| 1350 | 1152 | | 0000 | REG20 |
| 1351 | 4445 | | 0000 | REG21 |
| 1352 | 1152 | | 0000 | REG22 |
| 1353 | 4445 | | 0000 | REG23 |
| 1354 | 1152 | | 0000 | REG24 |
| 1355 | 4445 | | 0000 | REG25 |
| 1356 | 1152 | | 0000 | REG26 |
| 1357 | 4445 | | 0000 | REG27 |
| 1358 | 1152 | | 0000 | REG28 |
| 1359 | 4445 | | 0000 | REG29 |
| 1360 | 1152 | | 0000 | REG30 |
| 1361 | 4445 | | 0000 | REG31 |
| 1362 | 1152 | | 0000 | REG32 |
| 1363 | 4445 | | 0000 | REG33 |
| 1364 | 1152 | | 0000 | REG34 |
| 1365 | 4445 | | 0000 | REG35 |
| 1366 | 1152 | | 0000 | REG36 |
| 1367 | 4445 | | 0000 | REG37 |
| 1368 | 1152 | | 0000 | REG38 |
| 1369 | 4445 | | 0000 | REG39 |
| 1370 | 1152 | | 0000 | REG40 |
| 1371 | 4445 | | 0000 | REG41 |
| 1372 | 1152 | | 0000 | REG42 |
| 1373 | 4445 | | 0000 | REG43 |
| 1374 | 1152 | | 0000 | REG44 |
| 1375 | 4445 | | 0000 | REG45 |
| 1376 | 1152 | | 0000 | REG46 |
| 1377 | 4445 | | 0000 | REG47 |
| 1378 | 1152 | | 0000 | REG48 |
| 1379 | 4445 | | 0000 | REG49 |
| 1380 | 1152 | | 0000 | REG50 |

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 1126 4427 NERDPR
 1127 4430 LCLR24
 1128 4477 TBL29
 1129 4274 4280
 /
 /VERIFY THAT REGISTERS INITIATE LOAD COMMAND
 /
 1132 7391 STA CELL 140
 1133 4445 CLRNLL
 1134 4446 EMVAL1
 1135 7326 STA CELL 0ML 87
 1136 4445 CLRNLL
 1137 7126 STA CELL 0ML 87
 1138 4445 CLRNLL
 1141 3162 DDA 0REG02
 1142 1198 TAD REG1
 1143 4445 LDM02
 1144 4439 RDM02
 1145 4432 LDMDP1
 1146 4477 MIRROR
 1147 4432 EROR
 1152 1132 TSTSP
 1151 4271 4281
 /
 /VERIFY THAT REGCALIBRATE INITS ITS
 /LOAD DISK ADDRESS REG1
 /
 1152 7371 STA CELL 140
 1153 4445 CLRNLL
 1154 4436 EMVAL1
 1155 1152 TAD REG1
 1156 1152 DDA 0REG02
 1157 1140 TAD 0REG02
 1158 4444 LDAD02
 1159 7326 STA CELL 0ML 87
 1162 4445 CLRNLL
 1163 1150 TAD 4628
 1164 4444 LDAD02
 1165 4448 RDM02
 1166 4432 ACUDP1
 1167 4427 MIRROR
 1170 4470 EROR
 1171 1152 TSTSP
 1172 1172 4186
 /
 /VERIFY THAT MIRROR (MAINTENANCE) CODES NOT
 /AFFECTED BY WHEN ACTR0 AND ACTR1 ON 2.
 /
 1173 7371 STA CELL 140
 1174 4445 CLRNLL
 1175 1152 TAD 4621
 1176 1116 AND K3737
 1177 3168 DDA 0REG02
 1180 1168 TAD 0REG02
 1201 4447 LDM02

| LINE | 160 | OPCODE/REG | DATA | COMMENT |
|---|------|----------------------------------|------|--------------------------------|
| 1212 | 6432 | ADDCR | | VARIABLE ADD/CLEAR TO CCR |
| 1213 | 6429 | MOVCR | | AC = 0, 4796 LOOPS |
| 1214 | 6432 | IPR0 | | SETUP COMMAND AFFECTED AC |
| 1215 | 1173 | T010 | | ABOVE LOAD POINTER |
| 1216 | 6432 | ADDCR | | TEXT POINTED |
| / | | | | |
| *CHECK THAT T01000000000000000000000000000000 | | | | |
| / | | | | |
| 1217 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1218 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1219 | 1173 | T011 | | SET AC VALUE |
| 121A | 1173 | T011 | | READY FOR BIT 7 |
| 121B | 7148 | T010 | | SETUP COMPARE REGISTER |
| 121C | 0102 | T010 | | LOAD PATTERN |
| 121D | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 121E | 6472 | TS0100 | | AC = 0, 4796 LOOPS |
| 121F | 1173 | T010 | | SETUP COMMAND EFFECT AC |
| 1220 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1221 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1222 | 6432 | ADDCR | | TEXT POINTED |
| / | | | | |
| *CHECK THAT T01000000000000000000000000000000 | | | | |
| / | | | | |
| 1223 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1224 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1225 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1226 | 0102 | T010 | | LOAD PATTERN |
| 1227 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1228 | 2242 | T010 | | AC = 0, COUNT |
| 1229 | 1173 | T010 | | AC = 0, COUNT |
| 1230 | 6450 | T010 | | AC = 0, COUNT |
| 1231 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1232 | 6475 | T010 | | SETUP COMMAND MODE + 08481 |
| 1233 | 2242 | T010 | | LOAD MAINTENANCE |
| 1234 | 0153 | T010 | | AC = 0, COUNT 12 |
| 1235 | 5235 | T010 | | LOAD MAINTENANCE |
| 1236 | 0102 | T010 | | LOAD MAINTENANCE |
| 1237 | 6447 | T010 | | READY TO CLEAR MAIN FDR |
| 1238 | 1967 | T010 | | ENABLE BIT FOR HEAD BUFFER |
| 1239 | 6447 | T010 | | HEAD BUFFER |
| 1240 | 7144 | T010 | | READY FOR EXTRACT |
| 1241 | 0164 | T010 | | READY FOR EXTRACT |
| 1242 | 4432 | T010 | | CHECK AC |
| 1243 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1244 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1245 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1246 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1247 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1248 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1249 | 0102 | T010 | | LOAD PATTERN |
| 1250 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1251 | 2242 | T010 | | AC = 0, COUNT |
| 1252 | 1173 | T010 | | AC = 0, COUNT |
| 1253 | 6450 | T010 | | AC = 0, COUNT |
| 1254 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1255 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1256 | 5235 | T010 | | LOAD MAINTENANCE |
| 1257 | 0102 | T010 | | LOAD COUNT |
| 1258 | 6447 | T010 | | READY FOR EXTRACT |
| 1259 | 1967 | T010 | | AC = 0, COUNT |
| 1260 | 6447 | T010 | | READY FOR EXTRACT |
| 1261 | 7144 | T010 | | READY FOR EXTRACT |
| 1262 | 0164 | T010 | | READY FOR EXTRACT |
| 1263 | 4432 | T010 | | CHECK AC |
| 1264 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1265 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1266 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1267 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1268 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1269 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1270 | 0102 | T010 | | LOAD PATTERN |
| 1271 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1272 | 2242 | T010 | | AC = 0, COUNT |
| 1273 | 1173 | T010 | | AC = 0, COUNT |
| 1274 | 6450 | T010 | | AC = 0, COUNT |
| 1275 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1276 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1277 | 5235 | T010 | | LOAD MAINTENANCE |
| 1278 | 0102 | T010 | | LOAD COUNT |
| 1279 | 6447 | T010 | | READY FOR EXTRACT |
| 1280 | 1967 | T010 | | AC = 0, COUNT |
| 1281 | 6447 | T010 | | READY FOR EXTRACT |
| 1282 | 7144 | T010 | | READY FOR EXTRACT |
| 1283 | 0164 | T010 | | READY FOR EXTRACT |
| 1284 | 4432 | T010 | | CHECK AC |
| 1285 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1286 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1287 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1288 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1289 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1290 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1291 | 0102 | T010 | | LOAD PATTERN |
| 1292 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1293 | 2242 | T010 | | AC = 0, COUNT |
| 1294 | 1173 | T010 | | AC = 0, COUNT |
| 1295 | 6450 | T010 | | AC = 0, COUNT |
| 1296 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1297 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1298 | 5235 | T010 | | LOAD MAINTENANCE |
| 1299 | 0102 | T010 | | LOAD COUNT |
| 1300 | 6447 | T010 | | READY FOR EXTRACT |
| 1301 | 1967 | T010 | | AC = 0, COUNT |
| 1302 | 6447 | T010 | | READY FOR EXTRACT |
| 1303 | 7144 | T010 | | READY FOR EXTRACT |
| 1304 | 0164 | T010 | | READY FOR EXTRACT |
| 1305 | 4432 | T010 | | CHECK AC |
| 1306 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1307 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1308 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1309 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1310 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1311 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1312 | 0102 | T010 | | LOAD PATTERN |
| 1313 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1314 | 2242 | T010 | | AC = 0, COUNT |
| 1315 | 1173 | T010 | | AC = 0, COUNT |
| 1316 | 6450 | T010 | | AC = 0, COUNT |
| 1317 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1318 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1319 | 5235 | T010 | | LOAD MAINTENANCE |
| 1320 | 0102 | T010 | | LOAD COUNT |
| 1321 | 6447 | T010 | | READY FOR EXTRACT |
| 1322 | 1967 | T010 | | AC = 0, COUNT |
| 1323 | 6447 | T010 | | READY FOR EXTRACT |
| 1324 | 7144 | T010 | | READY FOR EXTRACT |
| 1325 | 0164 | T010 | | READY FOR EXTRACT |
| 1326 | 4432 | T010 | | CHECK AC |
| 1327 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1328 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1329 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1330 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1331 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1332 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1333 | 0102 | T010 | | LOAD PATTERN |
| 1334 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1335 | 2242 | T010 | | AC = 0, COUNT |
| 1336 | 1173 | T010 | | AC = 0, COUNT |
| 1337 | 6450 | T010 | | AC = 0, COUNT |
| 1338 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1339 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1340 | 5235 | T010 | | LOAD MAINTENANCE |
| 1341 | 0102 | T010 | | LOAD COUNT |
| 1342 | 6447 | T010 | | READY FOR EXTRACT |
| 1343 | 1967 | T010 | | AC = 0, COUNT |
| 1344 | 6447 | T010 | | READY FOR EXTRACT |
| 1345 | 7144 | T010 | | READY FOR EXTRACT |
| 1346 | 0164 | T010 | | READY FOR EXTRACT |
| 1347 | 4432 | T010 | | CHECK AC |
| 1348 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1349 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1350 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1351 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1352 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1353 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1354 | 0102 | T010 | | LOAD PATTERN |
| 1355 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1356 | 2242 | T010 | | AC = 0, COUNT |
| 1357 | 1173 | T010 | | AC = 0, COUNT |
| 1358 | 6450 | T010 | | AC = 0, COUNT |
| 1359 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1360 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1361 | 5235 | T010 | | LOAD MAINTENANCE |
| 1362 | 0102 | T010 | | LOAD COUNT |
| 1363 | 6447 | T010 | | READY FOR EXTRACT |
| 1364 | 1967 | T010 | | AC = 0, COUNT |
| 1365 | 6447 | T010 | | READY FOR EXTRACT |
| 1366 | 7144 | T010 | | READY FOR EXTRACT |
| 1367 | 0164 | T010 | | READY FOR EXTRACT |
| 1368 | 4432 | T010 | | CHECK AC |
| 1369 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1370 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1371 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1372 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1373 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1374 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1375 | 0102 | T010 | | LOAD PATTERN |
| 1376 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1377 | 2242 | T010 | | AC = 0, COUNT |
| 1378 | 1173 | T010 | | AC = 0, COUNT |
| 1379 | 6450 | T010 | | AC = 0, COUNT |
| 1380 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1381 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1382 | 5235 | T010 | | LOAD MAINTENANCE |
| 1383 | 0102 | T010 | | LOAD COUNT |
| 1384 | 6447 | T010 | | READY FOR EXTRACT |
| 1385 | 1967 | T010 | | AC = 0, COUNT |
| 1386 | 6447 | T010 | | READY FOR EXTRACT |
| 1387 | 7144 | T010 | | READY FOR EXTRACT |
| 1388 | 0164 | T010 | | READY FOR EXTRACT |
| 1389 | 4432 | T010 | | CHECK AC |
| 1390 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1391 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1392 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1393 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1394 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1395 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1396 | 0102 | T010 | | LOAD PATTERN |
| 1397 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1398 | 2242 | T010 | | AC = 0, COUNT |
| 1399 | 1173 | T010 | | AC = 0, COUNT |
| 1400 | 6450 | T010 | | AC = 0, COUNT |
| 1401 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1402 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1403 | 5235 | T010 | | LOAD MAINTENANCE |
| 1404 | 0102 | T010 | | LOAD COUNT |
| 1405 | 6447 | T010 | | READY FOR EXTRACT |
| 1406 | 1967 | T010 | | AC = 0, COUNT |
| 1407 | 6447 | T010 | | READY FOR EXTRACT |
| 1408 | 7144 | T010 | | READY FOR EXTRACT |
| 1409 | 0164 | T010 | | READY FOR EXTRACT |
| 1410 | 4432 | T010 | | CHECK AC |
| 1411 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1412 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1413 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1414 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1415 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1416 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1417 | 0102 | T010 | | LOAD PATTERN |
| 1418 | 6450 | T010 | | SETUP COMMAND REGISTER |
| 1419 | 2242 | T010 | | AC = 0, COUNT |
| 1420 | 1173 | T010 | | AC = 0, COUNT |
| 1421 | 6450 | T010 | | AC = 0, COUNT |
| 1422 | 2417 | T010 | | READY MAINTENANCE MODE + 08481 |
| 1423 | 0153 | T010 | | SETUP MAINTENANCE MODE |
| 1424 | 5235 | T010 | | LOAD MAINTENANCE |
| 1425 | 0102 | T010 | | LOAD COUNT |
| 1426 | 6447 | T010 | | READY FOR EXTRACT |
| 1427 | 1967 | T010 | | AC = 0, COUNT |
| 1428 | 6447 | T010 | | READY FOR EXTRACT |
| 1429 | 7144 | T010 | | READY FOR EXTRACT |
| 1430 | 0164 | T010 | | READY FOR EXTRACT |
| 1431 | 4432 | T010 | | CHECK AC |
| 1432 | 6487 | T010 | | AC = 0, 4796 LOOPS |
| 1433 | 6432 | IPR0 | | ABOVE LOAD POINTER |
| 1434 | 1173 | T010 | | AC = 0, 4796 LOOPS |
| 1435 | 0101 | TS010000000000000000000000000000 | | LOAD PATTERN |
| 1436 | 6445 | TS0100 | | AC = 0, 4796 LOOPS |
| 1437 | 1173 | T010 | | SETUP COMPARE REGISTER |
| 1438 | 0102 | T010 | | LOAD PATTERN |
| 1439 | | | | |

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 7000 PATTERN, 140H READ CRC REGISTER,
 7001 WRITE CRC REGISTER

| | | | |
|------|----------|-------------|---------------------------|
| 1333 | 7381 | CLA CLR 1AC | |
| 1334 | 4445 | CLHAL | ADDER, MUL ALU |
| 1335 | 1112 | TAU K2525 | |
| 1336 | 1162 | DCR GOREG0 | SETUP COMPARE REGISTER |
| 1337 | 1154 | TAU GOREG2 | |
| 1338 | 7142 | AND K2017 | |
| 1339 | 5157 | DCR GOREG1 | SETUP IP COMPARE REGISTER |
| 1340 | 1133 | TAU K16 | |
| 1341 | 5153 | DCR TCONTR1 | SET IP IX COUNT |
| 1342 | 4436 | CLMAN1 | ENTER MAINTENANCE MODE |
| 1343 | 7320 | CLA CLR 1AC | |
| 1344 | 1153 | TAU TCONTR1 | |
| 1345 | 7374 | AND K2522 | SETUP DATA BIT |
| 1346 | 4461 | TAU K1222 | ENABLED BITS |
| 1347 | 1147 | DCR LDMAN | LOAD MAINTENANCE |
| 1348 | 2153 | ISB TCONTR1 | |
| 1349 | 5145 | JMP T378 | IX COUNT |
| 1350 | 4446 | ROCR | READ CRC REGISTER |
| 1351 | 4433 | ACMP2 | CHECK RESULTS |
| 1352 | 7378 | VERPR | |
| 1353 | 4452 | TEROR | TEROR, CRC REGISTER |
| 1354 | 1141 | T378 | |
| 1355 | 5152 | 6294 | |
| 1356 | 4434 | / | |
| 1357 | 4427 | VERPR | |
| 1358 | 4432 | TEROR | |
| 1359 | 1133 | T378 | |
| 1360 | 4434 | 6294 | |
| 1361 | 4433 | / | |
| 1362 | 4434 | 6294 | |
| 1363 | 4754 | JMP T378 | IXC TEXT TEST |
| 1364 | 1470 | PSLSS | |
| 1365 | 1470 | / | |
| 1366 | PAGE | / | |
| 1367 | 1470 | / | |
| 1368 | 1470 | / | |
| 1369 | 1470 | / | |
| 1370 | 1470 | / | |
| 1371 | 1470 | / | |
| 1372 | 1470 | / | |
| 1373 | 1470 | / | |
| 1374 | 1470 | / | |
| 1375 | 1470 | / | |
| 1376 | 1470 | / | |
| 1377 | 1470 | / | |
| 1378 | 1470 | / | |
| 1379 | 1470 | / | |
| 1380 | 1470 | / | |
| 1381 | 1470 | / | |
| 1382 | 1470 | / | |
| 1383 | 1470 | / | |
| 1384 | 1470 | / | |
| 1385 | 1470 | / | |
| 1386 | 1470 | / | |
| 1387 | 1470 | / | |
| 1388 | 1470 | / | |
| 1389 | 1470 | / | |
| 1390 | 1470 | / | |
| 1391 | 1470 | / | |
| 1392 | 1470 | / | |
| 1393 | 1470 | / | |
| 1394 | 1470 | / | |
| 1395 | 1470 | / | |
| 1396 | 1470 | / | |
| 1397 | 1470 | / | |
| 1398 | 1470 | / | |
| 1399 | 1470 | / | |
| 1400 | 1470 | / | |
| 1401 | 1470 | / | |
| 1402 | 1470 | / | |
| 1403 | 1470 | / | |
| 1404 | 1470 | / | |
| 1405 | 1470 | / | |
| 1406 | 1470 | / | |
| 1407 | 1470 | / | |
| 1408 | 1470 | / | |
| 1409 | 1470 | / | |
| 1410 | 1470 | / | |
| 1411 | 1470 | / | |
| 1412 | 1470 | / | |
| 1413 | 1470 | / | |
| 1414 | 1470 | / | |
| 1415 | 1470 | / | |
| 1416 | 1470 | / | |
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| 1688 | 1470</td | | |

| TEST | DATA | OPERATIONS | STEP | RESULT |
|---|------|------------|---------|---------------------------|
| 1563 | 4418 | ACM10 | | CHECK REGISTERS |
| 1564 | 4427 | SRHBR | | SETUP 4226 LOOPS |
| 1565 | 4436 | SRHBR | | SETUP, REGISTERS |
| 1566 | 4445 | TSTB9 | | LOADS, REG REGISTER |
| 1567 | 4454 | 6284 | | ATXTX POINTER |
| / | | | | |
| VERIFY THAT "DATA" SINKS ALL UP THE DATA BUFFER, THE ALL COMBINATIONS IN CPU. | | | | |
| 1570 | 7371 | TSTB11 | 140 | |
| 1571 | 4468 | TAD | REG10 | WORD "00H ALL" |
| 1572 | 4477 | SEL | REG10 | |
| 1573 | 4486 | SEL | REG10 | RESET COMPARE REGISTERS |
| 1574 | 4495 | TAD | REG10 | |
| 1575 | 4504 | SEL | REG10 | SETUP 8 BIT MASK |
| 1576 | 4513 | TAD | REG10 | |
| 1577 | 4522 | SEL | REG10 | SETUP FIRST SHIFT COUNTER |
| 1578 | 4531 | TAD | REG10 | SETUP MAINTENANCE MODE |
| 1579 | 4540 | SEL | REG10 | |
| 1580 | 4549 | TAD | REG10 | |
| 1581 | 4558 | SEL | REG10 | |
| 1582 | 4567 | TAD | REG10 | |
| 1583 | 4576 | SEL | REG10 | |
| 1584 | 4585 | TAD | REG10 | |
| 1585 | 4594 | SEL | REG10 | |
| 1586 | 4603 | TAD | REG10 | |
| 1587 | 4612 | SEL | REG10 | |
| 1588 | 4621 | TAD | REG10 | |
| 1589 | 4630 | SEL | REG10 | |
| 1590 | 4639 | TAD | REG10 | |
| 1591 | 4648 | SEL | REG10 | |
| 1592 | 4657 | TAD | REG10 | |
| 1593 | 4666 | SEL | REG10 | |
| 1594 | 4675 | TAD | REG10 | |
| 1595 | 4684 | SEL | REG10 | |
| 1596 | 4693 | TAD | REG10 | |
| 1597 | 4702 | SEL | REG10 | |
| 1598 | 4711 | TAD | REG10 | |
| 1599 | 4720 | SEL | REG10 | |
| 1600 | 4729 | TAD | REG10 | |
| 1601 | 4738 | SEL | REG10 | |
| 1602 | 4747 | TAD | REG10 | |
| 1603 | 4756 | SEL | REG10 | |
| 1604 | 4765 | TAD | REG10 | |
| 1605 | 4774 | SEL | REG10 | |
| 1606 | 4783 | TAD | REG10 | |
| 1607 | 4792 | SEL | REG10 | |
| 1608 | 4801 | TAD | REG10 | |
| 1609 | 4810 | SEL | REG10 | |
| 1610 | 4819 | TAD | REG10 | |
| 1611 | 4828 | SEL | REG10 | |
| 1612 | 4837 | TAD | REG10 | |
| 1613 | 4846 | SEL | REG10 | |
| 1614 | 4855 | TAD | REG10 | |
| 1615 | 4864 | SEL | REG10 | |
| 1616 | 4873 | TAD | REG10 | |
| 1617 | 4882 | SEL | REG10 | |
| 1618 | 4891 | TAD | REG10 | |
| 1619 | 4900 | SEL | REG10 | |
| 1620 | 4909 | TAD | REG10 | |
| 1621 | 4918 | SEL | REG10 | |
| 1622 | 4927 | TAD | REG10 | |
| 1623 | 4936 | SEL | REG10 | |
| 1624 | 4945 | TAD | REG10 | |
| 1625 | 4954 | SEL | REG10 | |
| 1626 | 4963 | TAD | REG10 | |
| 1627 | 4972 | SEL | REG10 | |
| 1628 | 4981 | TAD | REG10 | |
| 1629 | 4990 | SEL | REG10 | |
| 1630 | 4999 | TAD | REG10 | |
| 1631 | 499A | SEL | REG10 | |
| 1632 | 499B | TAD | REG10 | |
| 1633 | 499C | SEL | REG10 | |
| 1634 | 499D | TAD | REG10 | |
| 1635 | 499E | SEL | REG10 | |
| 1636 | 499F | TAD | REG10 | |
| 1637 | 499G | SEL | REG10 | |
| 1638 | 499H | TAD | REG10 | |
| 1639 | 499I | SEL | REG10 | |
| 1640 | 499J | TAD | REG10 | |
| 1641 | 499K | SEL | REG10 | |
| 1642 | 499L | TAD | REG10 | |
| 1643 | 499M | SEL | REG10 | |
| 1644 | 499N | TAD | REG10 | |
| / | | | | |
| VERIFY THAT "DATA" SINK CAN BE SHIFTED TO UPPER DATA BUFFER THEN SINK TO LOWER DATA BUFFER, THE PATTERN ALL COMBINATIONS. | | | | |
| 1645 | 7371 | TSTB11 | 140 | |
| 1646 | 4445 | TAD | REG10 | RESET WORD ALL |
| 1647 | 4454 | SEL | REG10 | |
| 1648 | 4463 | TAD | REG10 | |
| 1649 | 4472 | SEL | REG10 | |
| 1650 | 4481 | TAD | REG10 | |
| 1651 | 4490 | SEL | REG10 | |
| 1652 | 4499 | TAD | REG10 | |
| 1653 | 4508 | SEL | REG10 | |
| 1654 | 4517 | TAD | REG10 | |
| 1655 | 4526 | SEL | REG10 | |
| 1656 | 4535 | TAD | REG10 | |
| 1657 | 4544 | SEL | REG10 | |
| 1658 | 4553 | TAD | REG10 | |
| 1659 | 4562 | SEL | REG10 | |
| 1660 | 4571 | TAD | REG10 | |
| 1661 | 4580 | SEL | REG10 | |
| 1662 | 4589 | TAD | REG10 | |
| 1663 | 4598 | SEL | REG10 | |
| 1664 | 4607 | TAD | REG10 | |
| 1665 | 4616 | SEL | REG10 | |
| 1666 | 4625 | TAD | REG10 | |
| 1667 | 4634 | SEL | REG10 | |
| 1668 | 4643 | TAD | REG10 | |
| 1669 | 4652 | SEL | REG10 | |
| 1670 | 4661 | TAD | REG10 | |
| 1671 | 4670 | SEL | REG10 | |
| 1672 | 4679 | TAD | REG10 | |
| 1673 | 4688 | SEL | REG10 | |
| 1674 | 4697 | TAD | REG10 | |
| 1675 | 4706 | SEL | REG10 | |
| 1676 | 4715 | TAD | REG10 | |
| 1677 | 4724 | SEL | REG10 | |
| 1678 | 4733 | TAD | REG10 | |
| 1679 | 4742 | SEL | REG10 | |
| 1680 | 4751 | TAD | REG10 | |
| 1681 | 4760 | SEL | REG10 | |
| 1682 | 4769 | TAD | REG10 | |
| 1683 | 4778 | SEL | REG10 | |
| 1684 | 4787 | TAD | REG10 | |
| 1685 | 4796 | SEL | REG10 | |
| 1686 | 4795 | TAD | REG10 | |
| 1687 | 4799 | SEL | REG10 | |
| 1688 | 479A | TAD | REG10 | |
| 1689 | 479B | SEL | REG10 | |
| 1690 | 479C | TAD | REG10 | |
| 1691 | 479D | SEL | REG10 | |
| 1692 | 479E | TAD | REG10 | |
| 1693 | 479F | SEL | REG10 | |
| 1694 | 479G | TAD | REG10 | |
| 1695 | 479H | SEL | REG10 | |
| 1696 | 479I | TAD | REG10 | |
| 1697 | 479J | SEL | REG10 | |
| 1698 | 479K | TAD | REG10 | |
| 1699 | 479L | SEL | REG10 | |
| 1700 | 479M | TAD | REG10 | |
| 1701 | 479N | SEL | REG10 | |
| 1702 | 479O | TAD | REG10 | |
| 1703 | 479P | SEL | REG10 | |
| 1704 | 479Q | TAD | REG10 | |
| 1705 | 479R | SEL | REG10 | |
| 1706 | 479S | TAD | REG10 | |
| 1707 | 479T | SEL | REG10 | |
| 1708 | 479U | TAD | REG10 | |
| 1709 | 479V | SEL | REG10 | |
| 1710 | 479W | TAD | REG10 | |
| 1711 | 479X | SEL | REG10 | |
| 1712 | 479Y | TAD | REG10 | |
| 1713 | 479Z | SEL | REG10 | |
| 1714 | 479A | TAD | REG10 | |
| 1715 | 479B | SEL | REG10 | |
| 1716 | 479C | TAD | REG10 | |
| 1717 | 479D | SEL | REG10 | |
| 1718 | 479E | TAD | REG10 | |
| 1719 | 479F | SEL | REG10 | |
| 1720 | 479G | TAD | REG10 | |
| 1721 | 479H | SEL | REG10 | |
| 1722 | 479I | TAD | REG10 | |
| 1723 | 479J | SEL | REG10 | |
| 1724 | 479K | TAD | REG10 | |
| 1725 | 479L | SEL | REG10 | |
| 1726 | 479M | TAD | REG10 | |
| 1727 | 479N | SEL | REG10 | |
| 1728 | 479O | TAD | REG10 | |
| 1729 | 479P | SEL | REG10 | |
| 1730 | 479Q | TAD | REG10 | |
| 1731 | 479R | SEL | REG10 | |
| 1732 | 479S | TAD | REG10 | |
| 1733 | 479T | SEL | REG10 | |
| 1734 | 479U | TAD | REG10 | |
| 1735 | 479V | SEL | REG10 | |
| 1736 | 479W | TAD | REG10 | |
| 1737 | 479X | SEL | REG10 | |
| 1738 | 479Y | TAD | REG10 | |
| 1739 | 479Z | SEL | REG10 | |
| 1740 | 479A | TAD | REG10 | |
| 1741 | 479B | SEL | REG10 | |
| 1742 | 479C | TAD | REG10 | |
| 1743 | 479D | SEL | REG10 | |
| 1744 | 479E | TAD | REG10 | |
| 1745 | 479F | SEL | REG10 | |
| 1746 | 479G | TAD | REG10 | |
| 1747 | 479H | SEL | REG10 | |
| 1748 | 479I | TAD | REG10 | |
| 1749 | 479J | SEL | REG10 | |
| 1750 | 479K | TAD | REG10 | |
| 1751 | 479L | SEL | REG10 | |
| 1752 | 479M | TAD | REG10 | |
| 1753 | 479N | SEL | REG10 | |
| 1754 | 479O | TAD | REG10 | |
| 1755 | 479P | SEL | REG10 | |
| 1756 | 479Q | TAD | REG10 | |
| 1757 | 479R | SEL | REG10 | |
| 1758 | 479S | TAD | REG10 | |
| 1759 | 479T | SEL | REG10 | |
| 1760 | 479U | TAD | REG10 | |
| 1761 | 479V | SEL | REG10 | |
| 1762 | 479W | TAD | REG10 | |
| 1763 | 479X | SEL | REG10 | |
| 1764 | 479Y | TAD | REG10 | |
| 1765 | 479Z | SEL | REG10 | |
| 1766 | 479A | TAD | REG10 | |
| 1767 | 479B | SEL | REG10 | |
| 1768 | 479C | TAD | REG10 | |
| 1769 | 479D | SEL | REG10 | |
| 1770 | 479E | TAD | REG10 | |
| 1771 | 479F | SEL | REG10 | |
| 1772 | 479G | TAD | REG10 | |
| 1773 | 479H | SEL | REG10 | |
| 1774 | 479I | TAD | REG10 | |
| 1775 | 479J | SEL | REG10 | |
| 1776 | 479K | TAD | REG10 | |
| 1777 | 479L | SEL | REG10 | |
| 1778 | 479M | TAD | REG10 | |
| 1779 | 479N | SEL | REG10 | |
| 1780 | 479O | TAD | REG10 | |
| 1781 | 479P | SEL | REG10 | |
| 1782 | 479Q | TAD | REG10 | |
| 1783 | 479R | SEL | REG10 | |
| 1784 | 479S | TAD | REG10 | |
| 1785 | 479T | SEL | REG10 | |
| 1786 | 479U | TAD | REG10 | |
| 1787 | 479V | SEL | REG10 | |
| 1788 | 479W | TAD | REG10 | |
| 1789 | 479X | SEL | REG10 | |
| 1790 | 479Y | TAD | REG10 | |
| 1791 | 479Z | SEL | REG10 | |
| 1792 | 479A | TAD | REG10 | |
| 1793 | 479B | SEL | REG10 | |
| 1794 | 479C | TAD | REG10 | |
| 1795 | 479D | SEL | REG10 | |
| 1796 | 479E | TAD | REG10 | |
| 1797 | 479F | SEL | REG10 | |
| 1798 | 479G | TAD | REG10 | |
| 1799 | 479H | SEL | REG10 | |
| 1800 | 479I | TAD | REG10 | |
| 1801 | 479J | SEL | REG10 | |
| 1802 | 479K | TAD | REG10 | |
| 1803 | 479L | SEL | REG10 | |
| 1804 | 479M | TAD | REG10 | |
| 1805 | 479N | SEL | REG10 | |
| 1806 | 479O | TAD | REG10 | |
| 1807 | 479P | SEL | REG10 | |
| 1808 | 479Q | TAD | REG10 | |
| 1809 | 479R | SEL | REG10 | |
| 1810 | 479S | TAD | REG10 | |
| 1811 | 479T | SEL | REG10 | |
| 1812 | 479U | TAD | REG10 | |
| 1813 | 479V | SEL | REG10 | |
| 1814 | 479W | TAD | REG10 | |
| 1815 | 479X | SEL | REG10 | |
| 1816 | 479Y | TAD | REG10 | |
| 1817 | 479Z | SEL | REG10 | |
| 1818 | 479A | TAD | REG10 | |
| 1819 | 479B | SEL | REG10 | |
| 1820 | 479C | TAD | REG10 | |
| 1821 | 479D | SEL | REG10 | |
| 1822 | 479E | TAD | REG10 | |
| 1823 | 479F | SEL | REG10 | |
| 1824 | 479G | TAD | REG10 | |
| 1825 | 479H | SEL | REG10 | |
| 1826 | 479I | TAD | REG10 | |
| 1827 | 479J | SEL | REG10 | |
| 1828 | 479K | TAD | REG10 | |
| 1829 | 479L | SEL | REG10 | |
| 1830 | 479M | TAD | REG10 | |
| 1831 | 479N | SEL | REG10 | |
| 1832 | 479O | TAD | REG10 | |
| 1833 | 479P | SEL | REG10 | |
| 1834 | 479Q | TAD | REG10</ | |

ALERT DATA & MASK
CLEAR ALL CONTROL TO ADDRESS
MASK OFF WHITE
VERBOSITY DATA REGISTERS
IGNORE LOOP POINTER
TEXT POSITION

/VERIFY THAT ALL DATA REGISTERS CAN BE READ
AND INDEXED FOR ALL COMBINATIONS

| | | | |
|------|------|---------------|----------------------|
| 1613 | 1181 | TST&R CLR CAC | |
| 1616 | 1445 | CLHLL | ALERT COLOR ALERT |
| 1617 | 1152 | TAD | HEX1 |
| 1620 | 1155 | SNA | CONT1 |
| 1621 | 1127 | TAD | W4 |
| 1622 | 1159 | SNA | CONT2 |
| 1623 | 1155 | TAD | THIN1 |
| 1624 | 1121 | CLHLL | ALERT INDEX BUFFER |
| 1625 | 1151 | SNA | BLK1 |
| 1626 | 1155 | TAD | THIN2 |
| 1627 | 1155 | SNA | THIN3 |
| 1630 | 1155 | JMP | WASH1 |
| 1631 | 1125 | TAD | RELT1 |
| 1632 | 1152 | SNA | WASH2 |
| 1633 | 1155 | TAD | W4 |
| 1634 | 1127 | SNA | THIN4 |
| 1635 | 1155 | TAD | WASH3 |
| 1636 | 1452 | BLK1 | ALERT INDEX BUFFER |
| 1637 | 1452 | ACOMP1 | WASH4 |
| 1640 | 1181 | SKP CAC | WASH5 |
| 1641 | 1247 | JMP | ALERT INDEX BUFFER |
| 1642 | 1160 | BLK2 | WASH6 |
| 1643 | 1155 | MSP | |
| 1644 | 1155 | JMP | CONT1 |
| 1645 | 1155 | TAD | W4 |
| 1646 | 1127 | BLK4H | ALERT INDEX BUFFER |
| 1647 | 1438 | TAB&L TSHLP | WASH7, DATA BYTES |
| 1650 | 1181 | TS145 | IGNORE LOOP POSITION |
| 1651 | 1445 | TS145 | TEXT POSITION |

/VERIFY THAT THE SIXT BUFFER ARE NOT AFFECTED BY
ADDRESS, INDEX, LOAD, COLOR, POSITION, OR INDEX1 INDEX,
FOR DATA PATTERN ALL COMBINATIONS

| | | | |
|------|------|---------------|--------------------|
| 1652 | 1181 | TST&R CLR CAC | |
| 1653 | 1445 | CLHLL | ALERT |
| 1654 | 1152 | TAD | HEX2 |
| 1655 | 1152 | SNA | CONT2 |
| 1656 | 1127 | TAD | W4 |
| 1657 | 1155 | SNA | CONT3 |
| 1658 | 1127 | TAD | WASH1 |
| 1659 | 1155 | TS145 | ALERT INDEX BUFFER |
| 1660 | 1121 | JMP | WASH2 |
| 1661 | 1121 | TAD | WASH3 |
| 1662 | 1155 | JMP | THIN1 |
| 1663 | 1120 | TAD | WASH4 |
| 1664 | 1152 | TAD | WASH5 |

| | | | |
|------|------|---------|------------------------|
| 1665 | 1444 | BLK1 | ALERT INDEX ADDRESS |
| 1666 | 1152 | TAD | ALERT CURRENT ADDRESS |
| 1667 | 1443 | CLHLL | |
| 1670 | 1152 | TAD | HEXA1 |
| 1671 | 1126 | ADC | 43777 |
| 1672 | 1142 | LCOM1 | |
| 1673 | 1154 | TAD | REG1 |
| 1674 | 1441 | ASKSP1 | WORKER |
| 1675 | 1152 | TAD | BLK1 |
| 1676 | 1155 | BLK2 | ALERT STATUS |
| 1677 | 1155 | BLK3 | ALERT STATUS |
| 1678 | 1155 | TAD | W4 |
| 1679 | 1127 | SNA | SETUP DAUGHTER |
| 1702 | 1151 | TAD | THIN1 |
| 1723 | 1162 | BLK1 | WASHABLE READ BUFFER |
| 1724 | 1267 | TAD | WASH2 |
| 1725 | 1442 | LOMAN | WASH4 |
| 1726 | 1164 | SNA | WASH5 |
| 1727 | 1164 | TAD | WASH6 |
| 1728 | 1164 | ACOMP1 | WASH7, RESULTS |
| 1729 | 1152 | SKP CAC | DATA TIME |
| 1730 | 1152 | JMP | ERRPR |
| 1731 | 1153 | TS145 | HEAD ALL COLOR |
| 1732 | 1153 | JMP | THIN2 |
| 1733 | 1442 | NE4KRP | WASH1, ALERT LOOPS |
| 1734 | 1442 | EPROM | ERROR, BUFFER AFFECTED |
| 1735 | 1152 | TST&A | IGNORE LOOP POSITION |
| 1736 | 1445 | TS145 | TEXT POSITION |

/VERIFY THAT THE UPPER BUFFER CAN BE LOADED
FROM INDEX TO LOWER BUFFER, USE A FLOATING
/1/S PATTERN

| | | | |
|------|------|---------------|------------------------|
| 1721 | 1153 | BLK1 | START AT 7 |
| 1722 | 1171 | TST&R CLR CAC | SEPARATE CLEAR CONTROL |
| 1723 | 1445 | CLHLL | CLEAR CONTROL |
| 1724 | 1153 | TAD | ASFT VALUE TO LOAD |
| 1725 | 1152 | SNA | ASFT COMPARE REGISTER |
| 1726 | 1153 | TAD | ASFT VAL E TO LOAD |
| 1727 | 1421 | LR4UF | ASFT FLOOR BUFFER |
| 1728 | 1452 | RDUF | HEAD LOWER BUFFER |
| 1731 | 1442 | ACOMP1 | WASH RESULTS |
| 1732 | 1162 | SKP CAC | DATA TIME |
| 1733 | 1154 | JMP | ERRPR |
| 1734 | 1153 | TAD | THIN1 |
| 1735 | 1153 | BLK1 | WASH2 |
| 1736 | 1153 | TAD | WASH3 |
| 1737 | 1152 | SNA | WASH4 TO EXT |
| 1740 | 1153 | TAD | ALERT 4205 TIMES |
| 1741 | 1127 | MEMOR | ERROR SLOW PUFFERS |
| 1742 | 1152 | SKP1 | IGNORE LOOP POSITION |
| 1743 | 1172 | TS147 | TEXT POSITION |
| 1744 | 1445 | TS147 | TEXT POSITION |

/VERIFY THAT THE LOWER BUFFER CAN BE LOADED

PAL12 V142 22-1P4-73 0117 PAGE 1-26
 2125 5314 TAD T585 VERROR, WORKIN
 2127 4441 CLR&XP T585 /CLEARXP
 2128 5324 TAD T585 VERROR, "D5SK2H"
 2121 4445 CLR&L T585 /CLEAR STATUS "WORKIN"
 2122 4447 DSK&XP T585 /D5SK&XP EXTR
 2123 4448 T585 MEMOR 4295 LOOPS
 2118 4449 T585 ERROR VERROR, "D5SK2H" SKIP ON WORKIN
 2115 2777 T585 T585 /SCOPR LOOP POINTER
 2116 5366 T585 /NEXT POINTER

 /*VERIFY THAT "D5SK2H" DOES CAUSE DISK "INTERUPT" IF
 /*ENABLED INSTEADOF IT IN INCOMPAT REGISTER
 /*
 2117 7581 T585 CLA CLL TAC /CLEARPC WORK ALM
 2122 4445 CLR&ALL T585 /CLEAR ALL
 2121 1275 TAD K1282 /SET INT, ENABLE MLD8 COMMAND REGISTER
 2122 4442 CLR&AL T585 /ENTER MAINTENANCE MODE
 2123 4446 TAU K1282
 2124 1275 TAU K1282 /SET PAIR WORKIN
 2125 4447 LD&AN K1284 /WAIT FOR INTERRUPT
 2126 4431 SKP CLL T585 /RESPON TO INT, RSL
 2127 7616 LD&AN T585 /D5K, INT, OCUPRES
 2128 4437 LD&AN T585 VERROR, INT, REQUEST
 2131 4439 T585 T585 /SCOPR LOOP POINTER
 2132 7117 T585 K1282 /TEXT PINTER
 2133 5817 K1282

 /*VERIFY THAT "D5K" SHOULD CAUSE INT, AND ONLY
 /*IF INT, ENBL8 BIT IS SET, DOES CLEAR CLEAR INT.
 /*
 2134 7321 T585 CLA CLL TAC /CLEAR PC,R ALM
 2135 4445 CLR&ALL T585 /ENTER MAINTENANCE MODE
 2136 4476 TAU K1282
 2137 1276 TAU K1282 /SET WORK DMAL
 2140 2447 LD&AN K1284 /WAIT FOR INT
 2141 4431 LD&AN T585 /D5K, NO INT, OCUPRES
 2142 7616 SKP CLL T585 /RESPON, INT, OCUPRED
 2143 4386 JMP T585 T585 /SET, INT, OCUPRED
 2144 1275 TAU K1282
 2145 4442 LD&OD
 2146 4431 LD&AN T585 /SET INT, ENABLE AND CLEAR INT,
 2147 7616 SKP CLL JMP 153E /CLEAR PCD INT,
 2150 5356 TAU K1282 /D5K, NO INT, RSL
 2151 1276 TAU K1282 VERROR, INT, OCUPRED
 2152 4447 LD&AN
 2153 4431 LD&AN T585 /SET "D5K" "DMAL"
 2154 7616 SKP CLL T585 /WAIT INT, SHOULD INT,
 2155 4437 LD&AN T585 VERROR, INT, OCUPRED
 2156 4438 T585, ERORR T585 /D5K, INT, RSL
 2157 7134 T585 T585 /SCOPR LOOP POINTER
 2158 4437 T585 K1282 /TEXT PINTER

 2161 5762 / JMP : .+1 /*NEXT TEST

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 2142 2222 T5154
 /*
 /*PAGE
 /*
 /*VERIFY THAT "D5CML" CLEARS STATUS REGISTER
 /*
 2202 7301 T585 CLA CLL TAC /*CLEAR "D5CML"
 2201 4445 CLR&ALL T585
 2202 1174 TAU STOON
 2203 1263 TAU K2824
 2204 3168 CLA GDR&C /SETUP COMPARE REGISTER
 2205 4430 ENH&M T585 /ENTER MAINTENANCE MODE
 2206 1275 TAU K1282 /ENABLE
 2207 4447 LD&AN T585 /SET "D5CML" DMAL
 2208 7305 CLA CLL TAU REG2 /READ STATUS REGISTER
 2211 1151 TAU REG2 /READ STATUS REGISTER
 2212 4434 RDSTAT /CHECK RESULTS
 2213 4432 ACMP&1 /D5K, CHECK CLEAR
 2214 7612 SKP CLL /STATUS REGISTER ERROR
 2215 5225 JMP T585 /CLEAR STATUS, "D5CML" COMMAND
 2216 4442 LD&OD /SETUP COMPARE REGISTER
 2217 1174 TAU STOON
 2220 3162 CLA GDR&C /SETUP COMPARE REGISTER
 2221 1152 TAU REG1 /READ STATUS REGISTER
 2222 4434 RDSTAT /CHECK RESULTS
 2223 4432 ACMP&1 /STATUS D5K, 4295 LOOPS
 2224 4427 LD&OD /ERRRR, STATUS REGISTER
 2225 4432 T585, ERORR /SCOPR, LOOP POINTER
 2226 2200 T585 5080 /TEXT PINTER

 /*VERIFY THAT RECALIBRATE DOES SET DRIVE STATUS
 /*RTRM IN THE STATUS REGISTER,
 /*
 2230 7301 T585 CLA CLL TAC /*ENABLE CLEAR CONTROL
 2231 4445 CLR&ALL /*CLEAR CONTROL
 2232 7321 CLA CLL TAC /*ENABLE CLEAR CONTROL
 2233 4445 CLR&ALL /*CLEAR CONTROL
 2234 1174 TAU STOON /SETUP EXPECTED COMPARE
 2235 3162 CLA GDR&C /READ STATUS REGISTER
 2236 4434 RDSTAT /CHECK RESULTS
 2237 4432 ACMP&1 /STATUS D5K
 2240 7612 SKP CLL /ERRRR, STATUS
 2241 5252 JMP T585 /SETUP EXPECTED COMPARE
 2242 7305 CLA CLL CH_RTL /ENABLE RECALIBRATE
 2243 1174 TAU STOON /RECALIBRATE
 2244 3162 CLA GDR&C /READ STATUS
 2245 7326 CLA CLL CM_RTL /CHECK RESULTS
 2246 4445 RDSTAT /D5K, 4295 LOOPS
 2247 4434 ACMP&1 /ERRRR, STATUS
 2250 4432 LD&OD /SCOPR, LOOP POINTER
 2251 4427 LD&OD /TEXT PINTER
 2252 4432 ERORR
 2253 2230 T585 5080 /NEXT PINTER

/ VERIFY THAT "LOAD DISK ADDRESS" CAUSES "MOVE STATUS REPORT"
 /
 2255 7321 TSETB CLA DLL IAC
 2256 4445 CLHALL
 2257 4444 LOAD
 2258 4444 TAG
 2259 1174 STC001
 2260 1261 TAG K0022
 2261 1162 TAG N0052
 2262 1153 TAG N0051
 2264 4474 H0051
 2265 4431 A0051
 2266 4407 H0051
 2267 4432 C0050
 2268 8255 TSETB
 2269 4220 B0050
 /
 VERIFY THAT "MOVE STATUS REPORT" CAUSES INT, PG.
 / H0051, JUMP SKIP INT,
 /
 2272 7321 TSETB CLA DLL IAC
 2273 4445 CLHALL
 2274 1075 TAG 42422
 2275 4442 LD001
 2276 4444 LD001
 2277 4471 LD001
 2278 5315 JMM T57E
 2279 1275 TAG K2420
 2282 4442 LD001
 2283 4431 LD001
 2284 4472 H0051
 2285 4432 T57E
 2286 9272 TSETB
 2287 677 2021
 /
 VERIFY THAT "LOAD DISK ADDRESS" CAUSES
 / MOVE STATUS REPORT, TES WITH DISK SKIP
 /
 2318 7321 TSETB CLA DLL IAC
 2319 4445 CLHALL
 2320 6004 LOAD
 2321 4444 TSXSKP
 2322 4441 JMM T58E
 2323 5320 TSXSKP
 2324 4441 TSXSKP
 2325 4300 JMM T58E
 2326 4477 LD001
 2327 4432 TSETB CLA DLL
 2328 7310 TSETB
 2329 1085 TSETB
 2330 7321 TSETB CLA DLL IAC
 /
 VERIFY THAT SELECT ERROR CAUSES "TSXSKP" TO SKIP ON ERROR
 /
 2323 7321 TSETB CLA DLL IAC

2324 4445 CLA DLL
 2325 4444 CLHALL
 2326 4444 TSXSKP
 2327 5335 JMM T58E
 2328 4445 CLHALL
 2329 4444 TSXSKP
 2330 4429 H0051
 2331 4432 TSETB CLA DLL
 2332 7323 TSETB
 2333 1076 TSETB
 2334 6777 JMM 1 JF
 2335 2400 T57E
 /
 2420 H0051
 /
 VERIFY THAT SELECT ERROR CAUSES "TSXSKP" TO SKIP ON ERROR
 / THEN INTERRPT
 /
 2420 7321 TSETB CLA DLL IAC
 2421 4445 CLHALL
 2422 1764 TAG K2436
 2423 5222 TAG T58E+2
 2424 1275 TAG K2432
 2425 4442 LD001
 2426 4444 LOADP
 2427 4441 TSXSKP
 2428 4216 JMM Y68Z
 2429 1055 TAG K2427
 2430 5220 TAG T58E+2
 2431 4431 LD001
 2432 7618 SKP CLA
 2433 4427 H0051
 2434 4432 TSETB ER001
 2435 4420 TSETB
 2436 1075 8006
 /
 VERIFY THAT "CLHALL" CAUSES AN INT, THEN SKIP
 /
 2421 7321 TSETB CLA DLL IAC
 2422 4445 CLHALL
 2423 1055 TAG K2437
 2424 3243 DCR 761E42
 2425 1375 TAG K2438
 2426 4442 LD001
 2427 4435 ENMATE
 2428 1275 TAG K2432
 2429 4442 LD001
 2430 4474 ENMATE
 2431 4442 LD001
 2432 4474 ENMATE
 2433 5224 JMM T58E
 2434 1054 TAG K2426
 2435 3243 DCR 761E42
 2436 4441 TSXSKP
 2437 7619 SKP CLA

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2442 4487 LCALL 00000000 /BUSY, READ, WRITE
2443 4498 T6401 00000000 /SETUP, READ, WRITE
2444 2421 T6402 00000000 /SCOPE LOAD POSITION
2445 1207 /
/ VERIFY THAT "CALIBRATE" DOES NOT INITIATE
/ DRIVE STATUS ERROR TEST
/
2446 7301 T6402, 00A CALL 140 /CLEAR CONTROL
2447 4449 CLRALL 00000000 /CLEAR SKIP
2448 4441 DSNSKP 00000000 /SET, NO SKIP
2449 7612 JMP 1421 /CLEAR, SKIP
2450 7302 00A CALL 00000000 /CLEAR, SKIP
2451 7303 CLRALL 00000000 /CLEAR, SKIP
2452 4449 DSNSKP 00000000 /CLEAR, SKIP
2453 4445 JMP 762E /CLEAR, SKIP
2454 5249 ENMANI 00000000 /CLEAR, SKIP
2455 4436 DSNSKP 00000000 /CLEAR, SKIP
2456 4441 DSNSKP 00000000 /CLEAR, SKIP
2457 7612 00A CALL 00000000 /CLEAR, SKIP
2458 5259 JMP 762E /CLEAR, SKIP
2459 7302 00A CALL 00000000 /CLEAR, SKIP
2460 4449 CLRALL 00000000 /CLEAR, SKIP
2461 4441 DSNSKP 00000000 /CLEAR, SKIP
2462 4437 T6401 00000000 /CLEAR, SKIP
2463 4437 T6402 00000000 /CLEAR, SKIP
2464 4437 T6403 00000000 /CLEAR, SKIP
2465 4484 T6404 00000000 /CLEAR, SKIP
2466 1073 /
/ VERIFY THAT "RECALIBRATE" THEN ONLY ONE SET PULLS
/ DRIVE STATUS ERROR
/
2470 7301 00A CALL 140 /CLEAR CONTROL
2471 4449 CLRALL 00000000 /EXPECTED STATUS
2472 1174 T6401 00000000 /SETUP, COMPARE REGISTER
2473 5162 00A 00000000 /READ STATUS
2474 1074 HSTAT 00000000 /CHECK RESULTS
2475 4472 DSNSKP 00000000 /STATUS OK,
2476 7612 00A CALL 00000000 /CLEAR, STATUS
2477 5259 JMP 762E /CLEAR, MAINTENANCE
2478 7303 CLRALL 00000000 /CLEAR, STATUS
2479 1174 T6401 00000000 /CLEAR, COMPARE REGISTER
2480 5162 T6402 00000000 /CLEAR, STATUS
2481 4449 T6403 00000000 /CLEAR, STATUS
2482 4441 DSNSKP 00000000 /CLEAR, STATUS
2483 4436 T6404 00000000 /CLEAR, STATUS
2484 7304 00A CALL 00000000 /CLEAR, STATUS
2485 4449 CLRALL 00000000 /CLEAR, STATUS
2486 4441 DSNSKP 00000000 /CLEAR, STATUS
2487 4437 T6401 00000000 /CLEAR, STATUS
2488 5259 DSNSKP 00000000 /CLEAR, STATUS
2489 7305 JMP 7612 /CLEAR, STATUS
2490 1174 T6401 00000000 /CLEAR, STATUS
2491 5162 T6402 00000000 /CLEAR, STATUS
2492 4449 T6403 00000000 /CLEAR, STATUS
2493 7306 T6404 00000000 /CLEAR, STATUS
2494 4449 CLRALL 00000000 /CLEAR, STATUS
2495 4441 DSNSKP 00000000 /CLEAR, STATUS
2496 4436 T6401 00000000 /CLEAR, STATUS
2497 5259 DSNSKP 00000000 /CLEAR, STATUS
2498 7307 JMP 7612 /CLEAR, STATUS
2499 1174 T6401 00000000 /CLEAR, STATUS
2500 5162 T6402 00000000 /CLEAR, STATUS
2501 4449 T6403 00000000 /CLEAR, STATUS
2502 7308 T6404 00000000 /CLEAR, STATUS
2503 4449 CLRALL 00000000 /CLEAR, STATUS
2504 4441 DSNSKP 00000000 /CLEAR, STATUS
2505 4436 T6401 00000000 /CLEAR, STATUS
2506 5259 DSNSKP 00000000 /CLEAR, STATUS
2507 7309 JMP 7612 /CLEAR, STATUS
2508 1174 T6401 00000000 /CLEAR, STATUS
2509 5162 T6402 00000000 /CLEAR, STATUS
2510 4449 T6403 00000000 /CLEAR, STATUS
2511 7310 T6404 00000000 /CLEAR, STATUS
2512 4449 CLRALL 00000000 /CLEAR, STATUS
2513 5162 T6401 00000000 /CLEAR, STATUS
2514 4449 DSNSKP 00000000 /CLEAR, STATUS
2515 7311 T6402 00000000 /CLEAR, STATUS
2516 1174 T6403 00000000 /CLEAR, STATUS
2517 5259 T6404 00000000 /CLEAR, STATUS
2518 7312 /
/ VERIFY THAT "RECALIBRATE" THEN WHILE REPORTS IN DRIV
/ DRIVE STATUS, AND TRANSFER DIRE
/
2519 7301 00A CALL 140 /CLEAR CONTROL
2520 4449 CLRALL 00000000 /CLEAR, STATUS
2521 1174 T6401 00000000 /SETUP, COMPARE REGISTER
2522 5162 HSTAT 00000000 /READ STATUS
2523 4438 ACMP1 00000000 /CHECK RESULTS
2524 4421 ACMP2 00000000 /STATUS, 0, K, 4896 LOOPS
2525 4432 T6401 00000000 /ERROR, RECALIBRATE
2526 7302 T6402 00000000 /STATUS, LOG POINTED
2527 4437 T6403 00000000 /STATUS, LOG POINTED
2528 7303 T6404 00000000 /STATUS, LOG POINTED
2529 4079 /
/ VERIFY THAT "RECALIBRATE" THEN WHILE REPORTS IN DRIV
/ DRIVE STATUS, AND TRANSFER DIRE
/
2530 7301 T6401 00A CALL 140 /CLEAR CONTROL
2531 4449 CLRALL 00000000 /CLEAR, STATUS
2532 1174 T6402 00000000 /SETUP, COMPARE REGISTER
2533 5162 HSTAT 00000000 /READ STATUS
2534 4432 ACMP1 00000000 /CHECK RESULTS
2535 4472 ACMP2 00000000 /STATUS, 0, K
2536 7612 DSNSKP 00000000 /CLEAR, STATUS
2537 5163 T6401 00000000 /CLEAR, STATUS
2538 4436 T6402 00000000 /CLEAR, STATUS
2539 7302 CLRALL 00000000 /CLEAR, STATUS
2540 4449 T6403 00000000 /CLEAR, STATUS
2541 7303 T6404 00000000 /CLEAR, STATUS
2542 1174 T6401 00000000 /CLEAR, STATUS
2543 5162 T6402 00000000 /CLEAR, STATUS
2544 4449 CLRALL 00000000 /CLEAR, STATUS
2545 4441 DSNSKP 00000000 /CLEAR, STATUS
2546 4434 T6401 00000000 /CLEAR, STATUS
2547 4432 ACMP1 00000000 /CLEAR, STATUS
2548 7612 DSNSKP 00000000 /CLEAR, STATUS
2549 5163 T6402 00000000 /CLEAR, STATUS
2550 4436 T6403 00000000 /CLEAR, STATUS
2551 7305 T6404 00000000 /CLEAR, STATUS
2552 1174 T6401 00000000 /CLEAR, STATUS
2553 5162 T6402 00000000 /CLEAR, STATUS
2554 4449 T6403 00000000 /CLEAR, STATUS
2555 1174 T6404 00000000 /CLEAR, STATUS
2556 4437 DSNSKP 00000000 /CLEAR, STATUS
2557 7612 T6401 00000000 /CLEAR, STATUS
2558 5163 T6402 00000000 /CLEAR, STATUS
2559 4436 T6403 00000000 /CLEAR, STATUS
2560 7306 T6404 00000000 /CLEAR, STATUS
2561 1174 T6401 00000000 /CLEAR, STATUS
2562 5162 T6402 00000000 /CLEAR, STATUS
2563 4449 T6403 00000000 /CLEAR, STATUS
2564 4427 T6404 00000000 /CLEAR, STATUS
2565 4432 T6401 00000000 /CLEAR, STATUS
2566 7307 T6402 00000000 /CLEAR, STATUS
2567 5259 T6403 00000000 /CLEAR, STATUS
2568 7308 /
2569 5771 T6404 00000000 /CLEAR, STATUS
2570 2898 /
2571 2899 /
2572 2899 /
/ VERIFY THAT "RECALIBRATE" THEN WHILE REPORTS IN DRIV
/ DRIVE STATUS, AND BUSY ERROR IN STATUS REGISTER
/
2582 7301 T6401 00A CALL 140 /CLEAR CONTROL

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2583 4449 CLRALL 00000000 /CLEAR, STATUS
2584 1174 T6402 00000000 /SETUP, COMPARE REGISTER
2585 5162 HSTAT 00000000 /READ STATUS
2586 4432 ACMP1 00000000 /CHECK RESULTS
2587 4437 ACMP2 00000000 /STATUS, 0, K, 4896 LOOPS
2588 7612 DSNSKP 00000000 /CLEAR, STATUS
2589 5163 T6401 00000000 /CLEAR, STATUS
2590 4436 T6402 00000000 /CLEAR, STATUS
2591 7305 T6403 00000000 /CLEAR, STATUS
2592 1174 T6404 00000000 /CLEAR, STATUS
2593 5162 T6401 00000000 /CLEAR, STATUS
2594 4449 T6402 00000000 /CLEAR, STATUS
2595 4441 DSNSKP 00000000 /CLEAR, STATUS
2596 4434 T6403 00000000 /CLEAR, STATUS
2597 7612 T6404 00000000 /CLEAR, STATUS
2598 5163 /
2599 4437 /
/ VERIFY THAT "RECALIBRATE" THEN WHILE REPORTS IN DRIV
/ DRIVE STATUS, AND BUSY ERROR IN STATUS REGISTER
/
2602 7301 T6401 00A CALL 140 /CLEAR CONTROL

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2741 4445 DCLBLI STCON /CLEAR
 2742 1174 TAC GDRH62 /SETUP COMPARE REGISTER
 2743 1168 TAC REG2
 2744 1161 TAC REG2
 2745 4434 ADCMP1 /READ STATUS
 2746 4431 ADCMP1 /CHECK RESULTS
 2747 4437 LCMR /LOOP, A/B/C LOOPS
 2748 4432 FAMR LCMR /ERROR, STATUS REGISTER
 2749 2722 TACREG /SMODE, DCR REGISTER
 2750 5280 5282 /TEXT PINTER
 /
 /VERIFY THAT INTERRUPT OCCURS ON BUSY ERROR
 /
 2753 7321 CLA CLR 140 /CLEAR CONTROL
 2754 4445 CLHALL TAG 49427 /ENABLE INT. BIT
 2755 1375 JDMC ENMAN /LOAD COMMAND
 2756 4442 ENMAN /ENTER MAINTENANCE
 2757 4438 CLA CLR CMR RTL
 2758 7323 CLHALL /CLEAR
 2759 4445 IONHA' /WAIT FOR INT.
 2760 4431 SKP CLA /INT. CLK.
 2761 7612 JMP T72E /ERRORS, BUSY INT.
 2762 4434 CLHALL /CLEAR STATUS
 2763 5173 JDMC /WAIT FOR INTERRUPT
 2764 5374 CLHALL /ERROR, NO INT.
 2765 4446 CLHALL /CLEAR
 2766 4431 JDMC /WAIT FOR INT.
 2767 5173 CLHALL /INT. CLK.
 2768 4443 CLHALL /LOOP, A/B/C LOOPS
 2769 4431 IONHA' /ERROR, INT.
 2770 7612 SKP CLA /SMODE, LOOP PINTER
 2771 4432 FAMR /TEXT PINTER
 2772 7322 TACREG /CLEAR
 2773 4437 TACREG /TEXT PINTER
 2774 4432 TACREG /CLEAR
 2775 7323 TACREG /TEXT PINTER
 2776 7027 7027 /
 /VERIFY THAT PROGRAM, "CLEAR, DMRH, DMRH, "CLEAR"
 /FOR THIS TEST DOES NOT EFFECT STATUS REGISTER
 /
 2777 7321 CLA CLR 140 /CLEAR CONTROL
 2778 4445 CLHALL ENMAN /ENTER MAINTENANCE
 2779 4436 CLA CLR CMR RTL
 2780 7323 CLHALL /CLEAR
 2781 4445 CLHALL /ENABLE SHIFT
 2782 1373 LCMR /CLEAR MAINTENANCE
 2783 4447 CLA CLR CMR RTL
 2784 7326 TAC REG2 /EXPECTED STATUS
 2785 1152 LCMR /SETUP COMPARE REGISTER
 2786 4447 CLA CLR CMR RTL
 2787 1174 STCON /READ BUFFER
 2788 1363 TAC REG2
 2789 1361 TAC REG2
 2790 1342 DCA DREG02 /EXPECTED STATUS
 2791 4452 PDRUF /READ BUFFER
 2792 1152 TAC REG2 /READ STATUS
 2793 4434 RSTAT /CLEAR
 2794 4432 ADCMP1 /CHECK RESULTS
 2795 4427 LCMR /LOOP, A/B/C LOOPS
 2801 4432 ERMR /ERROR, STATUS REGISTER
 2802 2777 TACREG /SMODE, LOOP PINTER
 2803 5280 5280 /TEXT PINTER
 /
 /VERIFY THAT COUNT COUNTER OVERFLOWS AND SETS
 /TRANSFER DONE ONLY AFTER 256 (12 BIT COUNT).
 /TRANSFER DONE SHOULD SET ON THE 11 TH, SHIFT
 /OF THE 256 TH WORD.
 /
 3041 7242 T5172, CLA CMR /SET FOR 3 PASS PER TEST
 3045 1152 DCA REG1 /CLEAR MUL ALL
 3046 7321 CLA CLR 140 /CLEAR
 3047 4445 CLHALL /CLEAR
 3052 1174 TAC STCON /SETUP COMPARE REGISTER
 3051 5162 DCA DREG02 /TAC
 3052 7326 CLA CLR CMR RTL
 3053 1136 TAC M12 /FOR FINAL WORD
 3054 3153 DCA TCON#1 /FOR ONE LESS THAN "LAST WORD"
 3055 1137 TAC M255 /ENTER MAINTENANCE MODE
 3056 3154 DCA TCON#2
 3057 4436 ENMAN /
 3062 1132 T524: TAC M12 /FOR EACH 12 BIT WORD
 3063 5155 DCA TCON#3 /ENABLE BITS TO SHIFT SILE
 3064 1272 TAC K2120 /LOAD MAINTENANCE
 3065 4447 LCMR /SKIP ON EVERY 12 BIT WORD
 3066 9263 PDRUF /THIS SHOULD PREVENT A "CLR"
 3067 4452 RSTAT /GET STATUS
 3068 4434 ADCMP1 /CHECK RESULTS
 3071 7618 SKP CLA /STATUS ERROR
 3072 5015 JMP T72E /COUNT 255 12 BIT WORDS
 3073 2134 TAC TCON#2 /ENABLE SHIFT SILE
 3074 5262 JMP T72E /LOAD MAINTENANCE
 3075 1272 TAC K2120 /BIT COUNTER
 3076 4447 LCMR /COUNT 11 BITS
 3077 2153 TAC TCON#1 /READ STATUS
 3120 5276 TAC 112 /
 3121 4434 RSTAT /

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3221 4441 0SKSKP /DSK0
 3222 7202 RCP /LOAD DSX4 ADDRESS
 3223 4444 LDADP /CLEAR BUFFER REGISTER
 3224 1152 TAG 4651 /READ STATUS
 3225 4421 LDGF /CLEAR STATUS
 3226 1152 TAG REG2 /CLEAR STATUS
 3227 4424 RSTAT /CLEAR STATUS
 3228 4432 ADCMP1 /CHECK RESULTS
 3231 7610 SKP CLA /STATUS CLK.
 3232 5241 JMP T72E /ERROR, STATUS
 3233 4445 CLHALL /CLEAR STATUS
 3234 1174 TAC STCON /EXPECTED STATUS
 3235 5160 TAC DREG02 /SETUP COMPARE REGISTER
 3236 4434 RSTAT /READ STATUS
 3237 4432 ADCMP1 /CHECK RESULTS
 3238 4427 LCMR /LOOP, A/B/C LOOPS
 3241 4432 ERMR /ERROR, STATUS REGISTER
 3242 2777 TACREG /SMODE, LOOP PINTER
 3243 5280 5280 /TEXT PINTER
 /
 /VERIFY THAT COUNT COUNTER OVERFLOWS AND SETS
 /TRANSFER DONE ONLY AFTER 256 (12 BIT COUNT).
 /TRANSFER DONE SHOULD SET ON THE 11 TH, SHIFT
 /OF THE 256 TH WORD.
 /
 3244 7242 T5172, CLA CMR /SET FOR 3 PASS PER TEST
 3245 1152 DCA REG1 /CLEAR MUL ALL
 3246 7321 CLA CLR 140 /CLEAR
 3247 4445 CLHALL /CLEAR
 3252 1174 TAC STCON /SETUP COMPARE REGISTER
 3251 5162 DCA DREG02 /TAC
 3252 7326 CLA CLR CMR RTL
 3253 1136 TAC M12 /FOR FINAL WORD
 3254 3153 DCA TCON#1 /FOR ONE LESS THAN "LAST WORD"
 3255 1137 TAC M255 /ENTER MAINTENANCE MODE
 3256 3154 DCA TCON#2
 3257 4436 ENMAN /
 3262 1132 T524: TAC M12 /FOR EACH 12 BIT WORD
 3263 5155 DCA TCON#3 /ENABLE BITS TO SHIFT SILE
 3264 1272 TAC K2120 /LOAD MAINTENANCE
 3265 4447 LCMR /SKIP ON EVERY 12 BIT WORD
 3266 9263 PDRUF /THIS SHOULD PREVENT A "CLR"
 3267 4452 RSTAT /GET STATUS
 3268 4434 ADCMP1 /CHECK RESULTS
 3271 7618 SKP CLA /STATUS ERROR
 3272 5015 JMP T72E /COUNT 255 12 BIT WORDS
 3273 2134 TAC TCON#2 /ENABLE SHIFT SILE
 3274 5262 JMP T72E /LOAD MAINTENANCE
 3275 1272 TAC K2120 /BIT COUNTER
 3276 4447 LCMR /COUNT 11 BITS
 3277 2153 TAC TCON#1 /READ STATUS
 3278 5276 TAC 112 /
 3279 4434 RSTAT /

1291 4452 1294-CPH-73 0147 PAGE 1 OF 2
 1292 4452 1294-CPH-73 0147 PAGE 2 OF 2
 1293 4452 1294-CPH-73 0147 PAGE 3 OF 2
 1294 4452 1294-CPH-73 0147 PAGE 4 OF 2

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3244 7610 SKT CLR 1AC      /STATUS ERROR
3245 F266 1000 773E
3246 7154 1000 TCVTP2
3247 5233 1000 77393
3250 7332 714 CLU CML RSP
3251 1176 1000 ST0DA
3252 7168 1000 TCA SORE52
3253 1772 1000 K2137
3254 4467 1000 DMAN
3255 0158 1000 TCVTS1
3256 6254 1000 TCVTP1
3257 4474 1000 PUSTAT
3260 4476 1000 ACQPM1
3261 7610 1000 RPK CLA
3262 5256 1000 T736
3263 0158 1000 TCVTPA
3264 6210 1000 T7381
3265 4427 1000 ALKMR
3266 4472 1000 LMROR
3267 3276 1000 TSV73
3268 6783 1000 6692
/
/*VERIFY THAT 12TH BIT (0,4) H DOES INHIBIT
*SETTING OF CONTROL, THIS IS WHAT STEPS
*HALF BLOCK DATA BREAKS ON A READ BREAK,
*/
3271 7321 TSV74, CLA CLU 1AC      /CLEAR CONTROL
3272 1445 CLR4P
3273 1272 TAD K012P
3274 4442 LCKD4P
3275 7342 CLA CLU CM4
3276 3156 004 REG1
3277 1135 1000 K128
3278 1155 004 TCVTP1
3279 4473 1000 LNMAM1

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| PALIN | NAME | 2244PR-73 | 1417 | PAGE 1419 |
|--|------|-----------|--------|----------------------------|
| 7303 | 9019 | JMP | 775E | READY, NEW |
| 7306 | 4152 | JMP | 70X7L | READY, 263 LINES |
| 7307 | 5074 | JMP | 7754 | READY, 240 LINES |
| 7308 | 1972 | JMP | 60177 | READY, 240 LINES |
| 7309 | 1942 | JMP | 60178 | READY, 240 LINES |
| 7310 | 7204 | JMP | 70X742 | ADD ONE MORE WORD |
| 7311 | 8071 | JMP | 178 | 70X848 PICTURE |
| 7312 | 6441 | JMP | 70X848 | VERBOS, 154P, 012 AND 013 |
| 7313 | 7617 | JMP | 70X848 | 104, 105, 106 |
| 7314 | 8791 | JMP | 70X848 | READY, 154P |
| 7315 | 4419 | JMP | 70X848 | READY, 154P |
| 7300 | 0343 | JMP | 70X75 | READY, LINE POINTED |
| 7301 | 7006 | JMP | 70X76 | READY, LINE POINTED |
| /* | | | | |
| RECORD THAT TEENAGER DONE CHANGING PAGE, NOW | | | | |
| /* | | | | |
| 3402 | 7840 | 70X76 | 70X84 | READY FOR 1 PAGE PER TEST |
| 3403 | 5152 | JMP | 70X851 | |
| 3404 | 7011 | JMP | 70X851 | READY, NOIR, 840 |
| 3405 | 4468 | JMP | 70X851 | ADD 155P, THAN BLAST AWORD |
| 3406 | 1235 | JMP | 70X851 | |
| 3407 | 3453 | JMP | 70X851 | READY, NOIR, 840 |
| 3408 | 1342 | JMP | 70X851 | READY, 154P, SET |
| 3409 | 3184 | JMP | 70X851 | READY, NOIR, REGISTER |
| 3410 | 1295 | JMP | 70X851 | READY, MAINTENANCE MODE |
| 3411 | 4442 | JMP | 70X851 | |
| 3412 | 4456 | JMP | 70X851 | |
| 3413 | 1132 | JMP | 70X851 | 7012 WITH WORD COUNTS |
| 3414 | 3159 | JMP | 70X851 | READY, SHIFT, 840 |
| 3407 | 1272 | JMP | 70X851 | READY, MAINTENANCE |
| 3422 | 4467 | JMP | 70X851 | |
| 3421 | 2155 | JMP | 70X851 | |
| 3422 | 5322 | JMP | 147 | READY, NOIR, 840 WORDS |
| 3422 | 1482 | JMP | 70X851 | READY, NOIR, 840 |
| 3424 | 4431 | JMP | 70X851 | READY, FOR TEST |
| 3425 | 7612 | JMP | 70X851 | 7014, NO COLOR |
| 3426 | 5213 | JMP | 70X851 | READY, NOIR, OCCUPIED |
| 3427 | 2155 | JMP | 70X851 | |
| 3422 | 5315 | JMP | 70X851 | READY, 263 WORDS |
| 3401 | 1872 | JMP | 70X851 | READY, MAINTENANCE |
| 3432 | 4443 | JMP | 70X851 | |
| 3433 | 2154 | JMP | 70X851 | ADD ONE MORE WORD |
| 3434 | 5212 | JMP | 147 | READY FOR EXPECTED INT. |
| 3435 | 4431 | JMP | 70X851 | READY, INT., BIGINT, COLOR |
| 3436 | 7613 | JMP | 70X851 | 104, 105, 106 |
| 3437 | 4427 | JMP | 70X851 | READY, INT. |
| 3440 | 4430 | JMP | 70X851 | READY, LINE POINTED |
| 3441 | 3422 | JMP | 70X851 | READY, LINE POINTED |
| 3442 | 4427 | JMP | 2637 | |

RECENTLY "DATA BREACH" FROM CURRENT FIELD LOCATION 3
4420 LAKESIDE DR., BETHLEHEM, PA 18020 AND TEL: 484-611-1212

| Page | Line | Op Code | Comments | Page | |
|------|------|---------|--|------|------------------------------|
| 1 | 5676 | 4443 | LDMIA | 1117 | 1045 |
| | 5513 | 1871 | TAD | | LOAD CURRENT ADDRESS TO 7777 |
| | 3488 | 4447 | LDMIA | | LOAD SHARED BIT |
| | 3621 | 4458 | LDHRD | | LOAD MAINTENANCE AND GO |
| | 3672 | 4432 | LDHRD | | RESET SYSTEM |
| | 3627 | 4427 | LDHRD | | SELECT RESULTS |
| | 3696 | 4432 | LDHRD | | WORK, ERRC LOGS |
| | 3420 | 3353 | LTSH7 | | WORK, DATA BREAK |
| | 3626 | 4283 | LTSH7 | | WORK, LOG PATTERN |
| | | | | | EXT PT REINIT |
| | | | / | | |
| | | | VERIFY THAT DATA BREAK WORKS FROM CURRENT FIELD | | |
| | | | LOCATION 0, DO A "WRITER" AND USE ALL COMBINATIONS, PATTERN: | | |
| | | | ALSO VERIFY THAT OUTBOUND DATA IN LOCATION 0 DOESN'T CHANGE | | |
| | | | ZON A WHITE BREAK, WORK DATA FROM LOCATION 0 BUT | | |
| | | | ZIN INDICATOR "01111" | | |
| | | | / | | |
| | 3487 | 7321 | TSTBL, CLA, CLW, IAC | | |
| | 3512 | 4448 | TAD | | WORK, NO R, ALU |
| | 3621 | 4438 | LDHRD | | WORK, MAINTENANCE MODE |
| | 7612 | 1151 | TAD | | |
| | 3613 | 7183 | LDCA | | SETTING COMPARE REGISTER |
| | 3614 | 1160 | TAD | | |
| | 3615 | 3387 | LDCA | | STORE OUTBOUND DATA |
| | 3616 | 4443 | TAD | | LOAD CURRENT ADDRESS TO 7 |
| | 3618 | 4443 | LDCA | | WORK, FIELD BITS |
| | 3619 | 1179 | LTSH7 | | RESET FUNCTION |
| | 3620 | 1181 | TAD | | WORK COMMAND |
| | 3621 | 4449 | LDCA | | DATA BREAK ENABLE BIT |
| | 3622 | 1171 | TAD | | WORK AND GO |
| | 3623 | 4407 | LTSH7 | | RESET BUFFER |
| | 3624 | 4450 | LDHRD | | WORK, PATTERN |
| | 3625 | 4432 | ACQPI1 | | |
| | 3626 | 7612 | SAC, CLA | | |
| | 3627 | 5235 | JMP | | WORK |
| | 3630 | 1182 | TAD | | |
| | 3631 | 5272 | LDCA | | WORK IN CASE OF ERROR |
| | 3632 | 1172 | TAD | | |
| | 3633 | 4432 | ACQPI1 | | ACQPI1 RESULTS |
| | 3634 | 4211 | LTSH7 | | WORK, ERRC LOGS |
| | 3635 | 4432 | LTSH7 | | WORK, DATA BREAK |
| | 3636 | 5277 | TSTBL | | SCOPE, LOG PATTERN |
| | 3637 | 4263 | LTSH7 | | EXT PT POINTER |
| | | | / | | |
| | | | VERIFY THAT DATA BREAK FROM LOCATION 7777 IS | | |
| | | | INCURRENT FIELD, DO A "WRITER" AND USE ALL COMBINATIONS, | | |
| | | | ALSO VERIFY THAT OUTBOUND DATA IN LOCATION 7777 | | |
| | | | DOESN'T CHANGE WHEN DOING A "WHITE" BREAK, WORK DATA FROM | | |
| | | | LOCATION 7777 BUT IN INDICATOR "01111" | | |
| | | | / | | |
| | 3640 | 7321 | TSTBL, CLA, CLW, IAC | | |
| | 3541 | 4448 | TAD | | WORK, NO R, ALU |
| | 3642 | 4436 | LDHRD | | WORK, MAINTENANCE MODE |
| | 7643 | 1158 | TAD | | |
| | 3644 | 3160 | LDCA | | SETTING COMPARE REGISTER |
| | | | / | | |
| | | | VERIFY THAT "LDCA" CLEARS CURRENT ADDRESS | | |
| | | | FIRST DO A DATA BREAK FROM LOCATION 7777 | | |
| | | | THEN "LDCA" FROM LOCATION 6287, DO "WRITER" | | |
| | | | AND USE DATA PATTERN ALL COMBINATIONS, | | |
| | | | / | | |
| | 3672 | 7321 | TSTBL, CLA, CLW, IAC | | |
| | 3673 | 4443 | LDHRD | | WORK, NO R, ALU |
| | 3674 | 4476 | LDHRD | | WORK, MAINTENANCE MODE |
| | 3675 | 1159 | TAD | | |
| | 3676 | 5162 | LDCA | | SETTING COMPARE REGISTER |
| | 3677 | 1160 | TAD | | |
| | 3702 | 3303 | LDCA | | STORE OUTBOUND DATA BREAK 1 |
| | 3703 | 1191 | TAD | | |
| | 3704 | 3389 | LDCA | | STORE OUTBOUND DATA BREAK 2 |
| | 3705 | 1172 | TAD | | RESET SYSTEM |
| | 3706 | 4472 | ACQPI1 | | FIELD |
| | 3686 | 4427 | LTSH7 | | |
| | 3687 | 4432 | TSTBL | | WORK, DATA BREAK |
| | 3688 | 7610 | TSTBL | | SCOPE, LOG PATTERN |
| | 3671 | 4263 | LTSH7 | | EXT PT POINTER |
| | | | / | | |
| | | | VERIFY THAT "LDCA" CLEARS CURRENT ADDRESS | | |
| | | | FIRST DO A DATA BREAK FROM LOCATION 7777 | | |
| | | | THEN "LDCA" FROM LOCATION 6287, DO "WRITER" | | |
| | | | AND USE DATA PATTERN ALL COMBINATIONS, | | |
| | | | / | | |
| | 3672 | 7321 | TSTBL, CLA, CLW, IAC | | |
| | 3673 | 4443 | LDHRD | | WORK, NO R, ALU |
| | 3674 | 4476 | LDHRD | | WORK, MAINTENANCE MODE |
| | 3675 | 1159 | TAD | | |
| | 3676 | 5162 | LDCA | | SETTING COMPARE REGISTER |
| | 3677 | 1160 | TAD | | |
| | 3702 | 3303 | LDCA | | STORE OUTBOUND DATA BREAK 1 |
| | 3703 | 1191 | TAD | | |
| | 3704 | 3389 | LDCA | | STORE OUTBOUND DATA BREAK 2 |
| | 3705 | 1172 | TAD | | RESET SYSTEM |
| | 3706 | 4472 | ACQPI1 | | FIELD |
| | 3707 | 4443 | LTSH7 | | |
| | 3717 | 4443 | LTSH7 | | WORK, ERRC LOGS |
| | 3712 | 1271 | TAD | | WORK, DATA BREAK |
| | 3711 | 4447 | LTSH7 | | WORK, LOG PATTERN |
| | 3712 | 4450 | LDHRD | | ACQPI1 RESULTS |
| | 3713 | 4432 | ACQPI1 | | WORK, TRY, LOCATION B |
| | 3714 | 7610 | SAC, CLA | | WORK, DATA BREAK |
| | 3715 | 5334 | JMP | | |
| | 3716 | 1321 | LDCA | | WORK, NO R, ALU |
| | 3717 | 4448 | LDHRD | | WORK, MAINTENANCE MODE |
| | 3722 | 4436 | LDHRD | | SETUP FOR ERRC PRINTER |
| | 3721 | 3167 | TAD | | INCURRENT FIELD BITS |
| | 3722 | 1172 | LDCA | | RESET SYSTEM |
| | 3723 | 1123 | TAD | | WORK, LOG PATTERN |
| | 3724 | 5262 | LDHRD | | ACQPI1 RESULTS |
| | 3725 | 1159 | TAD | | WORK, ERRC LOGS |

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| REG. NO. | DATA | DESCRIPTION | REG. NO. | DATA | DESCRIPTION |
|----------|------|----------------------|----------|------|----------------------|
| 5165 | 7421 | REG. 5165, DATA 7421 | 5166 | 7422 | REG. 5166, DATA 7422 |
| 5167 | 4422 | REG. 5167, DATA 4422 | 5168 | 7423 | REG. 5168, DATA 7423 |
| 5169 | 7424 | REG. 5169, DATA 7424 | 5170 | 7425 | REG. 5170, DATA 7425 |
| 5171 | 7426 | REG. 5171, DATA 7426 | 5172 | 7427 | REG. 5172, DATA 7427 |
| 5173 | 8421 | REG. 5173, DATA 8421 | 5174 | 7428 | REG. 5174, DATA 7428 |
| 5175 | 7429 | REG. 5175, DATA 7429 | 5176 | 7430 | REG. 5176, DATA 7430 |
| 5177 | 7431 | REG. 5177, DATA 7431 | 5178 | 7432 | REG. 5178, DATA 7432 |
| 5179 | 7433 | REG. 5179, DATA 7433 | 5180 | 7434 | REG. 5180, DATA 7434 |
| 5181 | 7435 | REG. 5181, DATA 7435 | 5182 | 7436 | REG. 5182, DATA 7436 |
| 5183 | 7437 | REG. 5183, DATA 7437 | 5184 | 7438 | REG. 5184, DATA 7438 |
| 5185 | 7439 | REG. 5185, DATA 7439 | 5186 | 7440 | REG. 5186, DATA 7440 |
| 5187 | 7441 | REG. 5187, DATA 7441 | 5188 | 7442 | REG. 5188, DATA 7442 |
| 5189 | 7443 | REG. 5189, DATA 7443 | 5190 | 7444 | REG. 5190, DATA 7444 |
| 5191 | 7445 | REG. 5191, DATA 7445 | 5192 | 7446 | REG. 5192, DATA 7446 |
| 5193 | 7447 | REG. 5193, DATA 7447 | 5194 | 7448 | REG. 5194, DATA 7448 |
| 5195 | 7449 | REG. 5195, DATA 7449 | 5196 | 7450 | REG. 5196, DATA 7450 |
| 5197 | 7451 | REG. 5197, DATA 7451 | 5198 | 7452 | REG. 5198, DATA 7452 |
| 5199 | 7453 | REG. 5199, DATA 7453 | 5200 | 7454 | REG. 5200, DATA 7454 |
| 5201 | 7455 | REG. 5201, DATA 7455 | 5202 | 7456 | REG. 5202, DATA 7456 |
| 5203 | 7457 | REG. 5203, DATA 7457 | 5204 | 7458 | REG. 5204, DATA 7458 |
| 5205 | 7459 | REG. 5205, DATA 7459 | 5206 | 7460 | REG. 5206, DATA 7460 |
| 5207 | 7461 | REG. 5207, DATA 7461 | 5208 | 7462 | REG. 5208, DATA 7462 |
| 5209 | 7463 | REG. 5209, DATA 7463 | 5210 | 7464 | REG. 5210, DATA 7464 |
| 5211 | 7465 | REG. 5211, DATA 7465 | 5212 | 7466 | REG. 5212, DATA 7466 |
| 5213 | 7467 | REG. 5213, DATA 7467 | 5214 | 7468 | REG. 5214, DATA 7468 |
| 5215 | 7469 | REG. 5215, DATA 7469 | 5216 | 7470 | REG. 5216, DATA 7470 |
| 5217 | 7471 | REG. 5217, DATA 7471 | 5218 | 7472 | REG. 5218, DATA 7472 |
| 5219 | 7473 | REG. 5219, DATA 7473 | 5220 | 7474 | REG. 5220, DATA 7474 |
| 5221 | 7475 | REG. 5221, DATA 7475 | 5222 | 7476 | REG. 5222, DATA 7476 |
| 5223 | 7477 | REG. 5223, DATA 7477 | 5224 | 7478 | REG. 5224, DATA 7478 |
| 5225 | 7479 | REG. 5225, DATA 7479 | 5226 | 7480 | REG. 5226, DATA 7480 |
| 5227 | 7481 | REG. 5227, DATA 7481 | 5228 | 7482 | REG. 5228, DATA 7482 |
| 5229 | 7483 | REG. 5229, DATA 7483 | 5230 | 7484 | REG. 5230, DATA 7484 |
| 5231 | 7485 | REG. 5231, DATA 7485 | 5232 | 7486 | REG. 5232, DATA 7486 |
| 5233 | 7487 | REG. 5233, DATA 7487 | 5234 | 7488 | REG. 5234, DATA 7488 |
| 5235 | 7489 | REG. 5235, DATA 7489 | 5236 | 7490 | REG. 5236, DATA 7490 |
| 5237 | 7491 | REG. 5237, DATA 7491 | 5238 | 7492 | REG. 5238, DATA 7492 |
| 5239 | 7493 | REG. 5239, DATA 7493 | 5240 | 7494 | REG. 5240, DATA 7494 |
| 5241 | 7495 | REG. 5241, DATA 7495 | 5242 | 7496 | REG. 5242, DATA 7496 |
| 5243 | 7497 | REG. 5243, DATA 7497 | 5244 | 7498 | REG. 5244, DATA 7498 |
| 5245 | 7499 | REG. 5245, DATA 7499 | 5246 | 7500 | REG. 5246, DATA 7500 |
| 5247 | 7501 | REG. 5247, DATA 7501 | 5248 | 7502 | REG. 5248, DATA 7502 |
| 5249 | 7503 | REG. 5249, DATA 7503 | 5250 | 7504 | REG. 5250, DATA 7504 |
| 5251 | 7505 | REG. 5251, DATA 7505 | 5252 | 7506 | REG. 5252, DATA 7506 |
| 5253 | 7507 | REG. 5253, DATA 7507 | 5254 | 7508 | REG. 5254, DATA 7508 |
| 5255 | 7509 | REG. 5255, DATA 7509 | 5256 | 7510 | REG. 5256, DATA 7510 |
| 5257 | 7511 | REG. 5257, DATA 7511 | 5258 | 7512 | REG. 5258, DATA 7512 |
| 5259 | 7513 | REG. 5259, DATA 7513 | 5260 | 7514 | REG. 5260, DATA 7514 |
| 5261 | 7515 | REG. 5261, DATA 7515 | 5262 | 7516 | REG. 5262, DATA 7516 |
| 5263 | 7517 | REG. 5263, DATA 7517 | 5264 | 7518 | REG. 5264, DATA 7518 |
| 5265 | 7519 | REG. 5265, DATA 7519 | 5266 | 7520 | REG. 5266, DATA 7520 |
| 5267 | 7521 | REG. 5267, DATA 7521 | 5268 | 7522 | REG. 5268, DATA 7522 |
| 5269 | 7523 | REG. 5269, DATA 7523 | 5270 | 7524 | REG. 5270, DATA 7524 |
| 5271 | 7525 | REG. 5271, DATA 7525 | 5272 | 7526 | REG. 5272, DATA 7526 |
| 5273 | 7527 | REG. 5273, DATA 7527 | 5274 | 7528 | REG. 5274, DATA 7528 |
| 5275 | 7529 | REG. 5275, DATA 7529 | 5276 | 7530 | REG. 5276, DATA 7530 |
| 5277 | 7531 | REG. 5277, DATA 7531 | 5278 | 7532 | REG. 5278, DATA 7532 |
| 5279 | 7533 | REG. 5279, DATA 7533 | 5280 | 7534 | REG. 5280, DATA 7534 |
| 5281 | 7535 | REG. 5281, DATA 7535 | 5282 | 7536 | REG. 5282, DATA 7536 |
| 5283 | 7537 | REG. 5283, DATA 7537 | 5284 | 7538 | REG. 5284, DATA 7538 |
| 5285 | 7539 | REG. 5285, DATA 7539 | 5286 | 7540 | REG. 5286, DATA 7540 |
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| 5289 | 7543 | REG. 5289, DATA 7543 | 5290 | 7544 | REG. 5290, DATA 7544 |
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| 5293 | 7547 | REG. 5293, DATA 7547 | 5294 | 7548 | REG. 5294, DATA 7548 |
| 5295 | 7549 | REG. 5295, DATA 7549 | 5296 | 7550 | REG. 5296, DATA 7550 |
| 5297 | 7551 | REG. 5297, DATA 7551 | 5298 | 7552 | REG. 5298, DATA 7552 |
| 5299 | 7553 | REG. 5299, DATA 7553 | 5300 | 7554 | REG. 5300, DATA 7554 |
| 5301 | 7555 | REG. 5301, DATA 7555 | 5302 | 7556 | REG. 5302, DATA 7556 |
| 5303 | 7557 | REG. 5303, DATA 7557 | 5304 | 7558 | REG. 5304, DATA 7558 |
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| 5307 | 7561 | REG. 5307, DATA 7561 | 5308 | 7562 | REG. 5308, DATA 7562 |
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| 5311 | 7565 | REG. 5311, DATA 7565 | 5312 | 7566 | REG. 5312, DATA 7566 |
| 5313 | 7567 | REG. 5313, DATA 7567 | 5314 | 7568 | REG. 5314, DATA 7568 |
| 5315 | 7569 | REG. 5315, DATA 7569 | 5316 | 7570 | REG. 5316, DATA 7570 |
| 5317 | 7571 | REG. 5317, DATA 7571 | 5318 | 7572 | REG. 5318, DATA 7572 |
| 5319 | 7573 | REG. 5319, DATA 7573 | 5320 | 7574 | REG. 5320, DATA 7574 |
| 5321 | 7575 | REG. 5321, DATA 7575 | 5322 | 7576 | REG. 5322, DATA 7576 |
| 5323 | 7577 | REG. 5323, DATA 7577 | 5324 | 7578 | REG. 5324, DATA 7578 |
| 5325 | 7579 | REG. 5325, DATA 7579 | 5326 | 7580 | REG. 5326, DATA 7580 |
| 5327 | 7581 | REG. 5327, DATA 7581 | 5328 | 7582 | REG. 5328, DATA 7582 |
| 5329 | 7583 | REG. 5329, DATA 7583 | 5330 | 7584 | REG. 5330, DATA 7584 |
| 5331 | 7585 | REG. 5331, DATA 7585 | 5332 | 7586 | REG. 5332, DATA 7586 |
| 5333 | 7587 | REG. 5333, DATA 7587 | 5334 | 7588 | REG. 5334, DATA 7588 |
| 5335 | 7589 | REG. 5335, DATA 7589 | 5336 | 7590 | REG. 5336, DATA 7590 |
| 5337 | 7591 | REG. 5337, DATA 7591 | 5338 | 7592 | REG. 5338, DATA 7592 |
| 5339 | 7593 | REG. 5339, DATA 7593 | 5340 | 7594 | REG. 5340, DATA 7594 |
| 5341 | 7595 | REG. 5341, DATA 7595 | 5342 | 7596 | REG. 5342, DATA 7596 |
| 5343 | 7597 | REG. 5343, DATA 7597 | 5344 | 7598 | REG. 5344, DATA 7598 |
| 5345 | 7599 | REG. 5345, DATA 7599 | 5346 | 7600 | REG. 5346, DATA 7600 |
| 5347 | 7601 | REG. 5347, DATA 7601 | 5348 | 7602 | REG. 5348, DATA 7602 |
| 5349 | 7603 | REG. 5349, DATA 7603 | 5350 | 7604 | REG. 5350, DATA 7604 |
| 5351 | 7605 | REG. 5351, DATA 7605 | 5352 | 7606 | REG. 5352, DATA 7606 |
| 5353 | 7607 | REG. 5353, DATA 7607 | 5354 | 7608 | REG. 5354, DATA 7608 |
| 5355 | 7609 | REG. 5355, DATA 7609 | 5356 | 7610 | REG. 5356, DATA 7610 |
| 5357 | 7611 | REG. 5357, DATA 7611 | 5358 | 7612 | REG. 5358, DATA 7612 |
| 5359 | 7613 | REG. 5359, DATA 7613 | 5360 | 7614 | REG. 5360, DATA 7614 |
| 5361 | 7615 | REG. 5361, DATA 7615 | 5362 | 7616 | REG. 5362, DATA 7616 |
| 5363 | 7617 | REG. 5363, DATA 7617 | 5364 | 7618 | REG. 5364, DATA 7618 |
| 5365 | 7619 | REG. 5365, DATA 7619 | 5366 | 7620 | REG. 5366, DATA 7620 |
| 5367 | 7621 | REG. 5367, DATA 7621 | 5368 | 7622 | REG. 5368, DATA 7622 |
| 5369 | 7623 | REG. 5369, DATA 7623 | 5370 | 7624 | REG. 5370, DATA 7624 |
| 5371 | 7625 | REG. 5371, DATA 7625 | 5372 | 7626 | REG. 5372, DATA 7626 |
| 5373 | 7627 | REG. 5373, DATA 7627 | 5374 | 7628 | REG. 5374, DATA 7628 |
| 5375 | 7629 | REG. 5375, DATA 7629 | 5376 | 7630 | REG. 5376, DATA 7630 |
| 5377 | 7631 | REG. 5377, DATA 7631 | 5378 | 7632 | REG. 5378, DATA 7632 |
| 5379 | 7633 | REG. 5379, DATA 7633 | 5380 | 7634 | REG. 5380, DATA 7634 |
| 5381 | 7635 | REG. 5381, DATA 7635 | 5382 | 7636 | REG. 5382, DATA 7636 |
| 5383 | 7637 | REG. 5383, DATA 7637 | 5384 | 7638 | REG. 5384, DATA 7638 |
| 5385 | 7639 | REG. 5385, DATA 7639 | 5386 | 7640 | REG. 5386, DATA 7640 |
| 5387 | 7641 | REG. 5387, DATA 7641 | 5388 | 7642 | REG. 5388, DATA 7642 |
| 5389 | 7643 | REG. 5389, DATA 7643 | 5390 | 7644 | REG. 5390, DATA 7644 |
| 5391 | 7645 | REG. 5391, DATA 7645 | 5392 | 7646 | REG. 5392, DATA 7646 |
| 5393 | 7647 | REG. 5393, DATA 7647 | 5394 | 7648 | REG. 5394, DATA 7648 |
| 5395 | 7649 | REG. 5395, DATA 7649 | 5396 | 7650 | REG. 5396, DATA 7650 |
| 5397 | 7651 | REG. 5397, DATA 7651 | 5398 | 7652 | REG. 5398, DATA 7652 |
| 5399 | 7653 | REG. 5399, DATA 7653 | 5400 | 7654 | REG. 5400, DATA 7654 |
| 5401 | 7655 | REG. 5401, DATA 7655 | 5402 | 7656 | REG. 5402, DATA 7656 |
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| 5405 | 7659 | REG. 5405, DATA 7659 | 5406 | 7660 | REG. 5406, DATA 7660 |
| 5407 | 7661 | REG. 5407, DATA 7661 | 5408 | 7662 | REG. 5408, DATA 7662 |
| 5409 | 7663 | REG. 5409, DATA 7663 | 5410 | 7664 | REG. 5410, DATA 7664 |
| 5411 | 7665 | REG. 5411, DATA 7665 | 5412 | 7666 | REG. 5412, DATA 7666 |
| 5413 | 7667 | REG. 5413, DATA 7667 | 5414 | 7668 | REG. 5414, DATA 7668 |
| 5415 | 7669 | REG. 5415, DATA 7669 | 5416 | 7670 | REG. 5416, DATA 7670 |
| 5417 | 7671 | REG. 5417, DATA 7671 | 5418 | 7672 | REG. 5418, DATA 7672 |
| 5419 | 7673 | REG. 5419, DATA 7673 | 5420 | 7674 | REG. 5420, DATA 7674 |
| 5421 | 7675 | REG. 5421, DATA 7675 | 5422 | 7676 | REG. 5422, DATA 7676 |
| 5423 | 7677 | REG. 5423, DATA 7677 | 5424 | 7678 | REG. 5424, DATA 7678 |
| 5425 | 7679 | REG. 5425, DATA 7679 | 5426 | 7680 | REG. 5426, DATA 7680 |
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| 5433 | 7687 | REG. 5433, DATA 7687 | 5434 | 7688 | REG. 5434, DATA 7688 |
| 5435 | 7689 | REG. 5435, DATA 7689 | 5436 | 7690 | REG. 5436, DATA 7690 |
| 5437 | 7691 | REG. 5437, DATA 7691 | 5438 | 7692 | REG. 5438, DATA 7692 |
| 5439 | 7693 | REG. 5439, DATA 7693 | 5440 | 7694 | REG. 5440, DATA 7694 |
| 5441 | 7695 | REG. 5441, DATA 7695 | 5442 | 7696 | REG. 5442, DATA 7696 |
| 5443 | 7697 | REG. 5443, DATA 7697 | 5444 | 7698 | REG. 5444, DATA 7698 |
| 5445 | 7699 | REG. 5445, DATA 7699 | 5446 | 7700 | REG. 5446, DATA 7700 |
| 5447 | 7701 | REG. 5447, DATA 7701 | 5448 | 7702 | REG. 5448, DATA 7702 |
| 5449 | 7703 | | | | |

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| 52114 | 75152 | 75152 | REC | 1 | 75152 |
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| 52116 | 76537 | 76537 | REC | 1 | 76537 |
| 52117 | 52523 | 52523 | REC | 1 | 52523 |
| 52118 | 52524 | 52524 | REC | 1 | 52524 |
| 52119 | 52525 | 52525 | REC | 1 | 52525 |
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| 52143 | 52549 | 52549 | REC | 1 | 52549 |
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| 52173 | 52579 | 52579 | REC | 1 | 52579 |
| 52174 | 52580 | 52580 | REC | 1 | 52580 |
| 52175 | 52581 | 52581 | REC | 1 | 52581 |
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| 52194 | 52600 | 52600 | REC | 1 | 52600 |
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| 52196 | 52602 | 52602 | REC | 1 | 52602 |
| 52197 | 52603 | 52603 | REC | 1 | 52603 |
| 52198 | 52604 | 52604 | REC | 1 | 52604 |
| 52199 | 52605 | 52605 | REC | 1 | 52605 |
| 52200 | 52606 | 52606 | REC | 1 | 52606 |
| 52201 | 52607 | 52607 | REC | 1 | 52607 |
| 52202 | 52608 | 52608 | REC | 1 | 52608 |
| 52203 | 52609 | 52609 | REC | 1 | 52609 |
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| 52223 | 52629 | 52629 | REC | 1 | 52629 |
| 52224 | 52630 | 52630 | REC | 1 | 52630 |
| 52225 | 52631 | 52631 | REC | 1 | 52631 |
| 52226 | 52632 | 52632 | REC | 1 | 52632 |
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| 52229 | 52635 | 52635 | REC | 1 | 52635 |
| 52230 | 52636 | 52636 | REC | 1 | 52636 |
| 52231 | 52637 | 52637 | REC | 1 | 52637 |
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| 52233 | 52639 | 52639 | REC | 1 | 52639 |
| 52234 | 52640 | 52640 | REC | 1 | 52640 |
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| 52236 | 52642 | 52642 | REC | 1 | 52642 |
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| 52238 | 52644 | 52644 | REC | 1 | 52644 |
| 52239 | 52645 | 52645 | REC | 1 | 52645 |
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| 52297 | 52703 | 52703 | REC | 1 | 52703 |
| 52298 | 52704 | 52704 | REC | 1 | 52704 |
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| 52325 | 52731 | 52731 | REC | 1 | 52731 |
| 52326 | 52732 | 52732 | REC | 1 | 52732 |
| 52327 | 52733 | 52733 | REC</td | | |

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| REGISTERS | DATA | OPERATION | DATA | REGISTERS |
|-----------|------|-------------|------|------------------|
| A210 | 7477 | | | 0000000000000000 |
| A212 | 7478 | MOV A, R10 | 7478 | 0000000000000000 |
| A213 | 7479 | MOV A, R11 | 7479 | 0000000000000000 |
| A214 | 747A | MOV A, R12 | 747A | 0000000000000000 |
| A215 | 747B | MOV A, R13 | 747B | 0000000000000000 |
| A216 | 747C | MOV A, R14 | 747C | 0000000000000000 |
| A217 | 747D | MOV A, R15 | 747D | 0000000000000000 |
| A218 | 747E | MOV A, R16 | 747E | 0000000000000000 |
| A219 | 747F | MOV A, R17 | 747F | 0000000000000000 |
| A220 | 7480 | MOV A, R18 | 7480 | 0000000000000000 |
| A221 | 7481 | MOV A, R19 | 7481 | 0000000000000000 |
| A222 | 7482 | MOV A, R20 | 7482 | 0000000000000000 |
| A223 | 7483 | MOV A, R21 | 7483 | 0000000000000000 |
| A224 | 7484 | MOV A, R22 | 7484 | 0000000000000000 |
| A225 | 7485 | MOV A, R23 | 7485 | 0000000000000000 |
| A226 | 7486 | MOV A, R24 | 7486 | 0000000000000000 |
| A227 | 7487 | MOV A, R25 | 7487 | 0000000000000000 |
| A228 | 7488 | MOV A, R26 | 7488 | 0000000000000000 |
| A229 | 7489 | MOV A, R27 | 7489 | 0000000000000000 |
| A230 | 748A | MOV A, R28 | 748A | 0000000000000000 |
| A231 | 748B | MOV A, R29 | 748B | 0000000000000000 |
| A232 | 748C | MOV A, R30 | 748C | 0000000000000000 |
| A233 | 748D | MOV A, R31 | 748D | 0000000000000000 |
| A234 | 748E | MOV A, R32 | 748E | 0000000000000000 |
| A235 | 748F | MOV A, R33 | 748F | 0000000000000000 |
| A236 | 7490 | MOV A, R34 | 7490 | 0000000000000000 |
| A237 | 7491 | MOV A, R35 | 7491 | 0000000000000000 |
| A238 | 7492 | MOV A, R36 | 7492 | 0000000000000000 |
| A239 | 7493 | MOV A, R37 | 7493 | 0000000000000000 |
| A240 | 7494 | MOV A, R38 | 7494 | 0000000000000000 |
| A241 | 7495 | MOV A, R39 | 7495 | 0000000000000000 |
| A242 | 7496 | MOV A, R40 | 7496 | 0000000000000000 |
| A243 | 7497 | MOV A, R41 | 7497 | 0000000000000000 |
| A244 | 7498 | MOV A, R42 | 7498 | 0000000000000000 |
| A245 | 7499 | MOV A, R43 | 7499 | 0000000000000000 |
| A246 | 749A | MOV A, R44 | 749A | 0000000000000000 |
| A247 | 749B | MOV A, R45 | 749B | 0000000000000000 |
| A248 | 749C | MOV A, R46 | 749C | 0000000000000000 |
| A249 | 749D | MOV A, R47 | 749D | 0000000000000000 |
| A250 | 749E | MOV A, R48 | 749E | 0000000000000000 |
| A251 | 749F | MOV A, R49 | 749F | 0000000000000000 |
| A252 | 74A0 | MOV A, R50 | 74A0 | 0000000000000000 |
| A253 | 74A1 | MOV A, R51 | 74A1 | 0000000000000000 |
| A254 | 74A2 | MOV A, R52 | 74A2 | 0000000000000000 |
| A255 | 74A3 | MOV A, R53 | 74A3 | 0000000000000000 |
| A256 | 74A4 | MOV A, R54 | 74A4 | 0000000000000000 |
| A257 | 74A5 | MOV A, R55 | 74A5 | 0000000000000000 |
| A258 | 74A6 | MOV A, R56 | 74A6 | 0000000000000000 |
| A259 | 74A7 | MOV A, R57 | 74A7 | 0000000000000000 |
| A260 | 74A8 | MOV A, R58 | 74A8 | 0000000000000000 |
| A261 | 74A9 | MOV A, R59 | 74A9 | 0000000000000000 |
| A262 | 74AA | MOV A, R60 | 74AA | 0000000000000000 |
| A263 | 74AB | MOV A, R61 | 74AB | 0000000000000000 |
| A264 | 74AC | MOV A, R62 | 74AC | 0000000000000000 |
| A265 | 74AD | MOV A, R63 | 74AD | 0000000000000000 |
| A266 | 74AE | MOV A, R64 | 74AE | 0000000000000000 |
| A267 | 74AF | MOV A, R65 | 74AF | 0000000000000000 |
| A268 | 74B0 | MOV A, R66 | 74B0 | 0000000000000000 |
| A269 | 74B1 | MOV A, R67 | 74B1 | 0000000000000000 |
| A270 | 74B2 | MOV A, R68 | 74B2 | 0000000000000000 |
| A271 | 74B3 | MOV A, R69 | 74B3 | 0000000000000000 |
| A272 | 74B4 | MOV A, R70 | 74B4 | 0000000000000000 |
| A273 | 74B5 | MOV A, R71 | 74B5 | 0000000000000000 |
| A274 | 74B6 | MOV A, R72 | 74B6 | 0000000000000000 |
| A275 | 74B7 | MOV A, R73 | 74B7 | 0000000000000000 |
| A276 | 74B8 | MOV A, R74 | 74B8 | 0000000000000000 |
| A277 | 74B9 | MOV A, R75 | 74B9 | 0000000000000000 |
| A278 | 74BA | MOV A, R76 | 74BA | 0000000000000000 |
| A279 | 74BB | MOV A, R77 | 74BB | 0000000000000000 |
| A280 | 74BC | MOV A, R78 | 74BC | 0000000000000000 |
| A281 | 74BD | MOV A, R79 | 74BD | 0000000000000000 |
| A282 | 74BE | MOV A, R80 | 74BE | 0000000000000000 |
| A283 | 74BF | MOV A, R81 | 74BF | 0000000000000000 |
| A284 | 74C0 | MOV A, R82 | 74C0 | 0000000000000000 |
| A285 | 74C1 | MOV A, R83 | 74C1 | 0000000000000000 |
| A286 | 74C2 | MOV A, R84 | 74C2 | 0000000000000000 |
| A287 | 74C3 | MOV A, R85 | 74C3 | 0000000000000000 |
| A288 | 74C4 | MOV A, R86 | 74C4 | 0000000000000000 |
| A289 | 74C5 | MOV A, R87 | 74C5 | 0000000000000000 |
| A290 | 74C6 | MOV A, R88 | 74C6 | 0000000000000000 |
| A291 | 74C7 | MOV A, R89 | 74C7 | 0000000000000000 |
| A292 | 74C8 | MOV A, R90 | 74C8 | 0000000000000000 |
| A293 | 74C9 | MOV A, R91 | 74C9 | 0000000000000000 |
| A294 | 74CA | MOV A, R92 | 74CA | 0000000000000000 |
| A295 | 74CB | MOV A, R93 | 74CB | 0000000000000000 |
| A296 | 74CC | MOV A, R94 | 74CC | 0000000000000000 |
| A297 | 74CD | MOV A, R95 | 74CD | 0000000000000000 |
| A298 | 74CE | MOV A, R96 | 74CE | 0000000000000000 |
| A299 | 74CF | MOV A, R97 | 74CF | 0000000000000000 |
| A300 | 74D0 | MOV A, R98 | 74D0 | 0000000000000000 |
| A301 | 74D1 | MOV A, R99 | 74D1 | 0000000000000000 |
| A302 | 74D2 | MOV A, R100 | 74D2 | 0000000000000000 |
| A303 | 74D3 | MOV A, R101 | 74D3 | 0000000000000000 |
| A304 | 74D4 | MOV A, R102 | 74D4 | 0000000000000000 |
| A305 | 74D5 | MOV A, R103 | 74D5 | 0000000000000000 |
| A306 | 74D6 | MOV A, R104 | 74D6 | 0000000000000000 |
| A307 | 74D7 | MOV A, R105 | 74D7 | 0000000000000000 |
| A308 | 74D8 | MOV A, R106 | 74D8 | 0000000000000000 |
| A309 | 74D9 | MOV A, R107 | 74D9 | 0000000000000000 |
| A310 | 74DA | MOV A, R108 | 74DA | 0000000000000000 |
| A311 | 74DB | MOV A, R109 | 74DB | 0000000000000000 |
| A312 | 74DC | MOV A, R110 | 74DC | 0000000000000000 |
| A313 | 74DD | MOV A, R111 | 74DD | 0000000000000000 |
| A314 | 74DE | MOV A, R112 | 74DE | 0000000000000000 |
| A315 | 74DF | MOV A, R113 | 74DF | 0000000000000000 |
| A316 | 74E0 | MOV A, R114 | 74E0 | 0000000000000000 |
| A317 | 74E1 | MOV A, R115 | 74E1 | 0000000000000000 |
| A318 | 74E2 | MOV A, R116 | 74E2 | 0000000000000000 |
| A319 | 74E3 | MOV A, R117 | 74E3 | 0000000000000000 |
| A320 | 74E4 | MOV A, R118 | 74E4 | 0000000000000000 |
| A321 | 74E5 | MOV A, R119 | 74E5 | 0000000000000000 |
| A322 | 74E6 | MOV A, R120 | 74E6 | 0000000000000000 |
| A323 | 74E7 | MOV A, R121 | 74E7 | 0000000000000000 |
| A324 | 74E8 | MOV A, R122 | 74E8 | 0000000000000000 |
| A325 | 74E9 | MOV A, R123 | 74E9 | 0000000000000000 |
| A326 | 74EA | MOV A, R124 | 74EA | 0000000000000000 |
| A327 | 74EB | MOV A, R125 | 74EB | 0000000000000000 |
| A328 | 74EC | MOV A, R126 | 74EC | 0000000000000000 |
| A329 | 74ED | MOV A, R127 | 74ED | 0000000000000000 |
| A330 | 74EE | MOV A, R128 | 74EE | 0000000000000000 |
| A331 | 74EF | MOV A, R129 | 74EF | 0000000000000000 |
| A332 | 74F0 | MOV A, R130 | 74F0 | 0000000000000000 |
| A333 | 74F1 | MOV A, R131 | 74F1 | 0000000000000000 |
| A334 | 74F2 | MOV A, R132 | 74F2 | 0000000000000000 |
| A335 | 74F3 | MOV A, R133 | 74F3 | 0000000000000000 |
| A336 | 74F4 | MOV A, R134 | 74F4 | 0000000000000000 |
| A337 | 74F5 | MOV A, R135 | 74F5 | 0000000000000000 |
| A338 | 74F6 | MOV A, R136 | 74F6 | 0000000000000000 |
| A339 | 74F7 | MOV A, R137 | 74F7 | 0000000000000000 |
| A340 | 74F8 | MOV A, R138 | 74F8 | 0000000000000000 |
| A341 | 74F9 | MOV A, R139 | 74F9 | 0000000000000000 |
| A342 | 74FA | MOV A, R140 | 74FA | 0000000000000000 |
| A343 | 74FB | MOV A, R141 | 74FB | 0000000000000000 |
| A344 | 74FC | MOV A, R142 | 74FC | 0000000000000000 |
| A345 | 74FD | MOV A, R143 | 74FD | 0000000000000000 |
| A346 | 74FE | MOV A, R144 | 74FE | 0000000000000000 |
| A347 | 74FF | MOV A, R145 | 74FF | 0000000000000000 |
| A348 | 7400 | MOV A, R146 | 7400 | 0000000000000000 |
| A349 | 7401 | MOV A, R147 | 7401 | 0000000000000000 |
| A350 | 7402 | MOV A, R148 | 7402 | 0000000000000000 |
| A351 | 7403 | MOV A, R149 | 7403 | 0000000000000000 |
| A352 | 7404 | MOV A, R150 | 7404 | 0000000000000000 |
| A353 | 7405 | MOV A, R151 | 7405 | 0000000000000000 |
| A354 | 7406 | MOV A, R152 | 7406 | 0000000000000000 |
| A355 | 7407 | MOV A, R153 | 7407 | 0000000000000000 |
| A356 | 7408 | MOV A, R154 | 7408 | 0000000000000000 |
| A357 | 7409 | MOV A, R155 | 7409 | 0000000000000000 |
| A358 | 740A | MOV A, R156 | 740A | 0000000000000000 |
| A359 | 740B | MOV A, R157 | 740B | 0000000000000000 |
| A360 | 740C | MOV A, R158 | 740C | 0000000000000000 |
| A361 | 740D | MOV A, R159 | 740D | 0000000000000000 |
| A362 | 740E | MOV A, R160 | 740E | 0000000000000000 |
| A363 | 740F | MOV A, R161 | 740F | 0000000000000000 |
| A364 | 7410 | MOV A, R162 | 7410 | 0000000000000000 |
| A365 | 7411 | MOV A, R163 | 7411 | 0000000000000000 |
| A366 | 7412 | MOV A, R164 | 7412 | 0000000000000000 |
| A367 | 7413 | MOV A, R165 | 7413 | 0000000000000000 |
| A368 | 7414 | MOV A, R166 | 7414 | 0000000000000000 |
| A369 | 7415 | MOV A, R167 | 7415 | 0000000000000000 |
| A370 | 7416 | MOV A, R168 | 7416 | 0000000000000000 |
| A371 | 7417 | MOV A, R169 | 7417 | 0000000000000000 |
| A372 | 7418 | MOV A, R170 | 7418 | 0000000000000000 |
| A373 | 7419 | MOV A, R171 | 7419 | 0000000000000000 |
| A374 | 741A | MOV A, R172 | 741A | 0000000000000000 |
| A375 | 741B | MOV A, R173 | 741B | 0000000000000000 |
| A376 | 741C | MOV A, R174 | 741C | 0000000000000000 |
| A377 | 741D | MOV A, R175 | 741D | 0000000000000000 |
| A378 | 741E | MOV A, R176 | 741E | 0000000000000000 |
| A379 | 741F | MOV A, R177 | 741F | 0000000000000000 |
| A380 | 7420 | MOV A, R178 | 7420 | 0000000000000000 |
| A381 | 7421 | MOV A, R179 | 7421 | 0000000000000000 |
| A382 | 7422 | MOV A, R180 | 7422 | 0000000000000000 |
| A383 | 7423 | MOV A, R181 | 7423 | 0000000000000000 |
| A384 | 7424 | MOV A, R182 | 7424 | 0000000000000000 |
| A385 | 7425 | MOV A, R183 | 7425 | 0000000000000000 |
| A386 | 7426 | MOV A, R184 | 7426 | 0000000000000000 |
| A387 | 7427 | MOV A, R185 | 7427 | 0000000000000000 |
| A388 | 7428 | MOV A, R186 | 7428 | 0000000000000000 |
| A389 | 7429 | MOV A | | |

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        FAULT    N142    SUBROUTINE      C117    PAGE 146
        6422  7841    CIA      00A      LOAD 146
        6421  1182    CIA      LOADB
        6422  7840    CIA CLR      146      SKIP IF CIA
        6423  2215    CIA      COMP
        6424  5615    CIA      COMP
        /
        /SUBROUTINE TO SUBTRACT, PECHE AND COMPARE TO
        /LOAD A AND COMPARE
        /
        6425  1022    CIA CLR
        6426  7822    CIA JPC  084501
        6427  1187    CIA KPC07
        6428  1141    CIA
        6429  7241    CIA
        6430  1181    CIA 084501
        6431  7842    CIA CLR
        6432  7821    CIA JPC  084502
        6433  1182    CIA KPC02
        6434  7242    CIA
        6435  1183    CIA 084502
        6436  7843    CIA CLR
        6437  7821    CIA JPC  084503
        6438  1184    CIA KPC03
        6439  7243    CIA
        6440  1185    CIA 084503
        6441  7847    CIA CLR
        6442  7229    CIA,   JPC  084502
        6443  8875    CIA JPC  1  COMP
        /
        /SUBROUTINE TO READ STATUS REGISTER
        /
        6444  7872    CIA 00A
        6445  8749    CIA KPC07
        6446  7812    CIA
        6447  7822    CIA STREG
        6448  7163    CIA STREG
        6449  7163    CIA KPC07
        6450  7843    CIA JPC  1
        /
        /SUBROUTINE TO LOAD CURRENT ADDRESS Register
        /
        6451  7802    CIA CLR
        6452  1187    CIA ADREQ
        6453  1187    CIA ADREQ      LOAD IN ADDRESS
        6454  1187    CIA
        6455  7744    CIA, 00A
        6456  8852    CIA JPC  1  LOAD
        6457  7872    CIA CLR, 00A      ALLOC CURRENT ADDRESS 107
        /
        /SUBROUTINE TO LOAD DISK ADDRESS Register
        /
        6458  7222    CIA CLR
        6459  8166    CIA DAPC0
        6460  1186    CIA DAPC0      SAVE OUTBOUND DATA
        6461  8743    CIA CLR
        6462  8853    CIA JPC  1
        6463  8743    CIA CLR      LOAD DISK ADDRESS REGISTER
        6464  8852    CIA JPC  1
        6465  7482    CIA CLR, 00A      EXIT
        /
        /SUBROUTINE TO LOAD COMMAND Register
        /

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        FAULT    N142    SUBROUTINE      C117    PAGE 146
        6466  7802    CIA CLR
        6467  7165    CIA KPC07
        6468  1185    CIA CMREQ
        6469  7145    CIA
        6470  7165    CIA, 00A
        6471  8745    CIA CLR
        6472  8853    CIA JPC  1  LOAD
        6473  7482    CIA CLR, 00A      LOAD COMMAND REGISTER
        /
        /SUBROUTINE TO ISSUE "SOKE" DISK SKIP 107
        /
        6474  4237    CIA CLR
        6475  6741    CIA JPC  0848
        6476  7813    CIA
        6477  8273    CIA 0848
        6478  6934    CIA JPC  1  SOKE      DISK SKIP 107
        /
        /SUBROUTINE TO ISSUE "SOKE" CLEAR 107
        /
        6501  1078    CIA CLR
        6502  6743    CIA JPC  0848
        6503  6751    CIA JPC  1  CLR
        6504  7492    CIA CLR, 00A      CLEAR 107
        /
        /SUBROUTINE TO ISSUE "SOKE" MAINTENANCE 107
        /
        6505  7802    CIA CLR
        6506  6747    CIA JPC  0848
        6507  6755    CIA JPC  1  LOAD
        6508  7492    CIA CLR, 00A      MAINTAIN MAINTENANCE 107
        /
        /SUBROUTINE TO SHIFT THE READ DISK
        /ADDRESS INTO DATA BUFFER, 12 SHIFTS
        /
        6511  1022    CIA CLR
        6512  4137    CIA FMNMD
        6513  1178    CIA KPC07
        6514  7152    CIA 00A
        6515  1078    CIA 00A 000012
        6516  1073    CIA 00A 02200
        6517  1047    CIA CLR
        6518  3158    CIA SEC01A
        6519  6317    CIA KPC07
        6520  7303    CIA CLR
        6521  1131    CIA KPC07
        6522  1192    CIA SEC01A
        6523  1056    CIA 00A
        6524  2447    CIA CLR
        6525  7152    CIA 00A
        6526  2026    CIA KPC07
        6527  7302    CIA CLR
        6528  1287    CIA CLR
        6529  1447    CIA KPC07
        6530  8165    CIA CLR
        /
        /SUBROUTINE TO ENTER MAINTENANCE MODE + DRAM
        /SETUP COUNTER
        /ENABLE SHIFT CRO
        /ENABLE SHIFT SURFACE AND SECTOR
        /READ MAINTENANCE
        /ENABLE SHIFTS
        /MOVE TO GO
        /
        6531  1022    CIA SEC01A
        6532  1192    CIA KPC07
        6533  7302    CIA CLR
        6534  1287    CIA KPC07
        6535  1447    CIA CLR
        6536  8165    CIA KPC07
        /
        /SUBROUTINE TO READ DATA BUFFER
        /READ RESULTS
        /

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2 4810 1049 PARAPHRASED PAGE 1 PAGE 1-67
 6576 1196 RETC
 6576 5712 RSP 1 RSP2 ALARM
 /* ROUTINE TO READ DATA BUFFER TO AC
 /*
 6577 1470 PDATA 0
 6578 1332 CLR ALL ONE REG
 6579 1447 LDATA 0
 6580 1282 TAD 0 RSP27
 6581 4447 UMAN 0
 6582 1164 DCA 0 RSP10
 6583 1284 TAD 0 RSP10
 6584 1172 DCA 0 RSP10
 6585 1272 TAD 0 RSP10
 6586 5737 JMP 1 RDS EXIT
 /*
 /*ROUTINE TO SHIFT COMMAND REGISTERS IN
 /*ACM & BFILE 4096 BYTES DATA BUFFER
 /*
 6587 1278 PDATA 0
 6588 4437 CLR ALL ONE REG
 6589 1132 LDATA 0
 6590 1152 TAD 0 RSP21
 6591 1478 DCA 0 ADD3
 6592 1447 LDATA 0
 6593 1132 TAD 0 RSP21
 6594 1282 DCA 0 ADD3
 6595 1447 UMAN 0
 6596 1164 TAD 0 RSP27
 6597 1332 DCA 0 CMPS
 6598 1282 TAD 0 RSP27
 6599 1172 UMAN 0
 6600 1272 DCA 0 CMPS
 6601 5737 TAD 0 RDS EXIT
 /*
 /*ROUTINE TO CENTER MAINTENANCE MODE
 /*
 6575 1470 PARAPHRASED PAGE 1 PAGE 1-67
 6576 1432 CLR ALL ONE REG
 6577 4447 LDATA 0
 6578 1282 TAD 0 RSP21
 6579 5737 JMP 1 RSP10
 1677 PDATA
 /*
 /*
 /*ROUTINE TO SHIFT CRC REGISTER TO DATA
 /*BINARY THEN READ IT
 /*
 6670 1272 PDATA 0
 6671 4437 CLR ALL ONE REG
 6672 1132 LDATA 0
 6673 1152 TAD 0 RSP21
 6674 1278 DCA 0 ADD3
 6675 4447 UMAN 0
 1678 PDATA 0
 /*
 /*
 /*ROUTINE TO SHIFT CRC REGISTER TO DATA
 /*BINARY THEN READ IT
 /*
 6670 1272 PDATA 0
 6671 4437 CLR ALL ONE REG
 6672 1132 LDATA 0
 6673 1152 TAD 0 RSP21
 6674 1278 DCA 0 ADD3
 6675 4447 UMAN 0

2 4810 4142 224384473 1117 PAGE 1-67
 6596 2552 154 82010 112 RSP10
 6597 1205 JMP 142 112 RSP10
 6616 7317 TAD 0 RSP27
 6611 1137 LDATA 0
 6612 4447 TAD 0 RSP27
 6613 1132 UMAN 0
 6614 4447 ENR412 112 RSP10
 6615 1132 TAD 0 RSP27
 6616 1132 DCA 0 RSP21
 6617 1176 TAD 0 RSP21
 6618 4447 UMAN 0
 6619 1272 DCA 0 RSP11
 6620 5227 TAD 1 RDS EXIT
 /*
 /*ROUTINE TO PRINT TAG DETAIL
 /*
 6631 1272 PDATA 0
 6632 1152 DCA 0 RSP21
 6633 1132 TAD 0 RSP10
 6634 7312 PDATA 0
 6635 7312 AND 0 RSP27
 6636 1069 AND 0 RSP27
 6637 1069 TAD 0 RSP27
 6638 4425 TYPE 0 RSP10
 6641 1152 TAD 0 RSP21
 6642 1163 DCA 0 RSP27
 6643 1065 TAD 0 RSP27
 6644 1425 TYPE 0 RSP10
 6645 5732 JMP 1 RDS EXIT
 /*
 /*ROUTINE TO PRINT TAG DETAIL
 /*
 6646 1272 PDATA 0
 6647 7312 TAD 0 RSP21
 6648 1142 TAD 0 RSP21
 6649 4425 TAD 0 RSP21
 6650 1143 TYPE 0 RSP10
 6651 4425 TYPE 0 RSP10
 6652 1143 TYPE 0 RSP10
 6653 4425 TYPE 0 RSP10
 6654 4426 TYPE 0 RSP10
 6655 7646 JMP 1 RDS EXIT
 /*
 /*ROUTINE TO PRINT FILE DETAIL
 /*
 6656 1272 PDATA 0
 6657 7312 PT+ 0
 6658 7326 PT+

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    4711 1142 2344H-73 1117 PAGE 1459
    4741 8241 TSI
    4742 8341 LAD ,+1
    4743 8452 CLD
    4744 7278 TAU
    4745 6779 JMP I RBL
    /ROUTINE TO PRINT TEXT
    /
    4751 8740 TAU
    4752 7378 SNA
    4753 7246 JPSI
    4754 7271 TSI
    4755 7262 JPSI
    4756 7259 TSI
    4757 7256 JPSI
    4758 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4761 8740 TAU
    4762 7378 SNA
    4763 7246 JPSI
    4764 7271 TSI
    4765 7262 JPSI
    4766 7259 TSI
    4767 7256 JPSI
    4768 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4771 8740 TAU
    4772 7378 SNA
    4773 7246 JPSI
    4774 7271 TSI
    4775 7262 JPSI
    4776 7259 TSI
    4777 7256 JPSI
    4778 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4781 8740 TAU
    4782 7378 SNA
    4783 7246 JPSI
    4784 7271 TSI
    4785 7262 JPSI
    4786 7259 TSI
    4787 7256 JPSI
    4788 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4791 8740 TAU
    4792 7378 SNA
    4793 7246 JPSI
    4794 7271 TSI
    4795 7262 JPSI
    4796 7259 TSI
    4797 7256 JPSI
    4798 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4801 8740 TAU
    4802 7378 SNA
    4803 7246 JPSI
    4804 7271 TSI
    4805 7262 JPSI
    4806 7259 TSI
    4807 7256 JPSI
    4808 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4811 8740 TAU
    4812 7378 SNA
    4813 7246 JPSI
    4814 7271 TSI
    4815 7262 JPSI
    4816 7259 TSI
    4817 7256 JPSI
    4818 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4821 8740 TAU
    4822 7378 SNA
    4823 7246 JPSI
    4824 7271 TSI
    4825 7262 JPSI
    4826 7259 TSI
    4827 7256 JPSI
    4828 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4831 8740 TAU
    4832 7378 SNA
    4833 7246 JPSI
    4834 7271 TSI
    4835 7262 JPSI
    4836 7259 TSI
    4837 7256 JPSI
    4838 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4841 8740 TAU
    4842 7378 SNA
    4843 7246 JPSI
    4844 7271 TSI
    4845 7262 JPSI
    4846 7259 TSI
    4847 7256 JPSI
    4848 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4851 8740 TAU
    4852 7378 SNA
    4853 7246 JPSI
    4854 7271 TSI
    4855 7262 JPSI
    4856 7259 TSI
    4857 7256 JPSI
    4858 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4861 8740 TAU
    4862 7378 SNA
    4863 7246 JPSI
    4864 7271 TSI
    4865 7262 JPSI
    4866 7259 TSI
    4867 7256 JPSI
    4868 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4871 8740 TAU
    4872 7378 SNA
    4873 7246 JPSI
    4874 7271 TSI
    4875 7262 JPSI
    4876 7259 TSI
    4877 7256 JPSI
    4878 7256 RBL
    /ROUTINE TO PRINT TEXT
    /
    4881 8740 TAU
    4882 7378 SNA
    4883 7246 JPSI
    4884 7271 TSI
    4885 7262 JPSI
    4886 7259 TSI
    4887 7256 JPSI
    4888 7256 RBL

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    4911 1142 2344H-73 1117 PAGE 1459
    5741 8241 TSI
    5742 8341 LAD ,+1
    5743 8452 CLD
    5744 7278 TAU
    5745 6779 JMP I RBL
    /ROUTINE TO SET ALL REGISTERS AFTER "RESET"
    /
    5751 8272 JUMP I
    5752 7272 LAD
    5753 7275 LAD K8422 /MASK S176-3
    5754 7268 SNA CLD /MAS 17 SEL ALL
    5755 7271 JMP I TAU
    5756 7265 CLD CLT /GET STATUS
    5757 7262 CLD CLT /HEAD BUFFER
    5758 7262 CLD CLT /12 BIT COUNTER
    5759 7262 CLD CLT /ENABLE SHIFT SECTOR AND SURFACE
    5760 7262 CLD CLT /LOAD MAINTENANCE
    5761 7262 CLD CLT /LOAD SURFACE AND SECTOR
    5762 7262 CLD CLT /12 BIT SHIFT
    5763 7262 CLD CLT /HEAD OFF
    5764 7262 CLD CLT /HEAD COMMAND
    5765 7267 CLD CLT /LOAD MAINTENANCE
    5766 7267 CLD CLT /LOAD SURFACE AND SECTOR
    5767 7267 CLD CLT /HEAD OFF
    5768 7267 CLD CLT /HEAD COMMAND
    5769 7267 CLD CLT /REPORT
    5770 7272 PAGE
    /ROUTINE TO ENTER MAINTENANCE MODE AND
    /SET CLT=1 TO ENABLE SHIFT TO LOWER SIDI
    /
    5781 8272 JUMP I
    5782 7272 CLD CLT CLT PAR /ENABLE SET MAINTENANCE MODE
    5783 7272 CLD CLT CLT PAR /LOAD MAINTENANCE
    5784 7272 CLD CLT CLT PAR /ENABLE SET SEIDI
    5785 7272 CLD CLT CLT PAR /HEAD MAINTENANCE
    5786 7272 CLD CLT CLT PAR /HEAD MAINTENANCE
    /SUBROUTINE FOR TWO ERROHSP AND SCOPE
    /CLD(CL), UPDATE OF COUNTEN "REG1" AND
    /COUNT COUNT "REG2" ON EVERY ENTRY
    /
    5791 8272 JAD
    5792 7272 LAD /MASK S176-4
    5793 7272 LAD 43232 /MAS 17 SEL
    5794 7272 SNA CLA /MAS 17 SEL
    5795 7272 JMP I ,+4 /MAS 17 SEL

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| PC | DATA | OPCODE | DATA | DATA | DATA |
|------|------|--------|------|------|------|
| 7214 | 7178 | | 1101 | 1101 | 1101 |
| 7215 | 7188 | | 1101 | 1101 | 1101 |
| 7216 | 7198 | STORH | 1101 | 1101 | 1101 |
| 7217 | 7201 | | 1101 | 1101 | 1101 |
| 7218 | 7207 | | 1101 | 1101 | 1101 |
| 7219 | 7210 | | 1101 | 1101 | 1101 |
| 7220 | 7212 | | 1101 | 1101 | 1101 |
| 7221 | 7216 | | 1101 | 1101 | 1101 |
| 7222 | 7217 | | 1101 | 1101 | 1101 |
| 7223 | 7218 | | 1101 | 1101 | 1101 |
| 7224 | 7219 | | 1101 | 1101 | 1101 |
| 7225 | 7220 | | 1101 | 1101 | 1101 |
| 7226 | 7221 | | 1101 | 1101 | 1101 |
| 7227 | 7222 | | 1101 | 1101 | 1101 |
| 7228 | 7223 | | 1101 | 1101 | 1101 |
| 7229 | 7224 | | 1101 | 1101 | 1101 |
| 7230 | 7225 | | 1101 | 1101 | 1101 |
| 7231 | 7226 | | 1101 | 1101 | 1101 |
| 7232 | 7227 | | 1101 | 1101 | 1101 |
| 7233 | 7228 | | 1101 | 1101 | 1101 |
| 7234 | 7229 | | 1101 | 1101 | 1101 |
| 7235 | 7230 | | 1101 | 1101 | 1101 |
| 7236 | 7231 | | 1101 | 1101 | 1101 |
| 7237 | 7232 | | 1101 | 1101 | 1101 |
| 7238 | 7233 | | 1101 | 1101 | 1101 |
| 7239 | 7234 | | 1101 | 1101 | 1101 |
| 7240 | 7235 | | 1101 | 1101 | 1101 |
| 7241 | 7236 | | 1101 | 1101 | 1101 |
| 7242 | 7237 | | 1101 | 1101 | 1101 |
| 7243 | 7238 | | 1101 | 1101 | 1101 |
| 7244 | 7239 | | 1101 | 1101 | 1101 |
| 7245 | 7240 | | 1101 | 1101 | 1101 |
| 7246 | 7241 | | 1101 | 1101 | 1101 |
| 7247 | 7242 | | 1101 | 1101 | 1101 |
| 7248 | 7243 | | 1101 | 1101 | 1101 |
| 7249 | 7244 | | 1101 | 1101 | 1101 |
| 7250 | 7245 | | 1101 | 1101 | 1101 |
| 7251 | 7246 | | 1101 | 1101 | 1101 |
| 7252 | 7247 | | 1101 | 1101 | 1101 |
| 7253 | 7248 | | 1101 | 1101 | 1101 |
| 7254 | 7249 | | 1101 | 1101 | 1101 |
| 7255 | 7250 | | 1101 | 1101 | 1101 |
| 7256 | 7251 | | 1101 | 1101 | 1101 |
| 7257 | 7252 | | 1101 | 1101 | 1101 |
| 7258 | 7253 | | 1101 | 1101 | 1101 |
| 7259 | 7254 | | 1101 | 1101 | 1101 |
| 7260 | 7255 | | 1101 | 1101 | 1101 |
| 7261 | 7256 | | 1101 | 1101 | 1101 |
| 7262 | 7257 | | 1101 | 1101 | 1101 |
| 7263 | 7258 | | 1101 | 1101 | 1101 |
| 7264 | 7259 | | 1101 | 1101 | 1101 |
| 7265 | 7260 | | 1101 | 1101 | 1101 |
| 7266 | 7261 | | 1101 | 1101 | 1101 |
| 7267 | 7262 | | 1101 | 1101 | 1101 |
| 7268 | 7263 | | 1101 | 1101 | 1101 |
| 7269 | 7264 | | 1101 | 1101 | 1101 |
| 7270 | 7265 | | 1101 | 1101 | 1101 |
| 7271 | 7266 | | 1101 | 1101 | 1101 |
| 7272 | 7267 | | 1101 | 1101 | 1101 |
| 7273 | 7268 | | 1101 | 1101 | 1101 |
| 7274 | 7269 | | 1101 | 1101 | 1101 |
| 7275 | 7270 | | 1101 | 1101 | 1101 |
| 7276 | 7271 | | 1101 | 1101 | 1101 |
| 7277 | 7272 | | 1101 | 1101 | 1101 |
| 7278 | 7273 | | 1101 | 1101 | 1101 |
| 7279 | 7274 | | 1101 | 1101 | 1101 |
| 7280 | 7275 | | 1101 | 1101 | 1101 |
| 7281 | 7276 | | 1101 | 1101 | 1101 |
| 7282 | 7277 | | 1101 | 1101 | 1101 |
| 7283 | 7278 | | 1101 | 1101 | 1101 |
| 7284 | 7279 | | 1101 | 1101 | 1101 |
| 7285 | 7280 | | 1101 | 1101 | 1101 |
| 7286 | 7281 | | 1101 | 1101 | 1101 |
| 7287 | 7282 | | 1101 | 1101 | 1101 |
| 7288 | 7283 | | 1101 | 1101 | 1101 |
| 7289 | 7284 | | 1101 | 1101 | 1101 |
| 7290 | 7285 | | 1101 | 1101 | 1101 |
| 7291 | 7286 | | 1101 | 1101 | 1101 |
| 7292 | 7287 | | 1101 | 1101 | 1101 |
| 7293 | 7288 | | 1101 | 1101 | 1101 |
| 7294 | 7289 | | 1101 | 1101 | 1101 |
| 7295 | 7290 | | 1101 | 1101 | 1101 |
| 7296 | 7291 | | 1101 | 1101 | 1101 |
| 7297 | 7292 | | 1101 | 1101 | 1101 |
| 7298 | 7293 | | 1101 | 1101 | 1101 |
| 7299 | 7294 | | 1101 | 1101 | 1101 |
| 7300 | 7295 | | 1101 | 1101 | 1101 |
| 7301 | 7296 | | 1101 | 1101 | 1101 |
| 7302 | 7297 | | 1101 | 1101 | 1101 |
| 7303 | 7298 | | 1101 | 1101 | 1101 |
| 7304 | 7299 | | 1101 | 1101 | 1101 |
| 7305 | 7300 | | 1101 | 1101 | 1101 |
| 7306 | 7301 | | 1101 | 1101 | 1101 |
| 7307 | 7302 | | 1101 | 1101 | 1101 |
| 7308 | 7303 | | 1101 | 1101 | 1101 |
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| 7320 | 7315 | | 1101 | 1101 | 1101 |
| 7321 | 7316 | | 1101 | 1101 | 1101 |
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| 7380 | 7375 | | 1101 | 1101 | 1101 |
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| 7247 | 7222 | | | | |
| 7248 | 1722 | | | | |
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| 724A | 401 | DATA[1] | TEXT | "PORTA REGISTER ERROR" | |
| 724B | 2421 | | | | |
| 724C | 2421 | | | | |
| 724D | 4024 | | | | |
| 724E | 1527 | | | | |
| 724F | 1223 | | | | |
| 7250 | 5265 | | | | |
| 7251 | 5240 | | | | |
| 7252 | 1528 | | | | |
| 7253 | 2212 | | | | |
| 7254 | 2222 | | | | |
| 7255 | 1411 | DATA[1] | TEXT | "PAGE SKIP ERROR" | |
| 7256 | 7313 | | | | |
| 7257 | 5273 | | | | |
| 7258 | 1511 | | | | |
| 7259 | 2243 | | | | |
| 725A | 1522 | | | | |
| 725B | 1517 | | | | |
| 725C | 2222 | | | | |
| 725D | 2222 | | | | |
| 725E | 1511 | DATA[1] | TEXT | "PORT INTERRUPT ERROR" | |
| 725F | 7313 | | | | |
| 7260 | 4511 | | | | |
| 7261 | 1524 | | | | |
| 7262 | 1522 | | | | |
| 7263 | 7225 | | | | |
| 7264 | 3554 | | | | |
| 7265 | 4025 | | | | |
| 7266 | 5222 | | | | |
| 7267 | 1722 | | | | |
| 7268 | 1522 | | | | |
| 7269 | 1522 | DATA[1] | TEXT | "PORT REGISTER ERROR" | |
| 726A | 1723 | | | | |
| 726B | 4022 | | | | |
| 726C | 5207 | | | | |
| 726D | 1523 | | | | |
| 726E | 2423 | | | | |
| 726F | 7225 | | | | |
| 7270 | 1522 | | | | |
| 7271 | 1522 | | | | |
| 7272 | 1522 | | | | |
| 7273 | 1522 | | | | |
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| 7275 | 2222 | | | | |
| 7276 | 1522 | | | | |
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| 7279 | 7225 | | | | |
| 727A | 1522 | | | | |
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| 727C | 2222 | | | | |
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| NAME | NUMBER | TYPE | DATE | TIME | WIND | TEMP | DEPTH | STATION |
|-------|--------|------|------|-------|-------|------|-------|---------|
| T-100 | 1727 | | 1968 | 16:16 | N 10° | 70.0 | 1000 | T-100 |
| T-101 | 1728 | | 1968 | 16:28 | N 10° | 70.0 | 1000 | T-101 |
| T-102 | 1729 | | 1968 | 16:38 | N 10° | 70.0 | 1000 | T-102 |
| T-103 | 1730 | | 1968 | 16:48 | N 10° | 70.0 | 1000 | T-103 |
| T-104 | 1731 | | 1968 | 16:58 | N 10° | 70.0 | 1000 | T-104 |
| T-105 | 1732 | | 1968 | 17:08 | N 10° | 70.0 | 1000 | T-105 |
| T-106 | 1733 | | 1968 | 17:18 | N 10° | 70.0 | 1000 | T-106 |
| T-107 | 1734 | | 1968 | 17:28 | N 10° | 70.0 | 1000 | T-107 |
| T-108 | 1735 | | 1968 | 17:38 | N 10° | 70.0 | 1000 | T-108 |
| T-109 | 1736 | | 1968 | 17:48 | N 10° | 70.0 | 1000 | T-109 |
| T-110 | 1737 | | 1968 | 17:58 | N 10° | 70.0 | 1000 | T-110 |
| T-111 | 1738 | | 1968 | 18:08 | N 10° | 70.0 | 1000 | T-111 |
| T-112 | 1739 | | 1968 | 18:18 | N 10° | 70.0 | 1000 | T-112 |
| T-113 | 1740 | | 1968 | 18:28 | N 10° | 70.0 | 1000 | T-113 |
| T-114 | 1741 | | 1968 | 18:38 | N 10° | 70.0 | 1000 | T-114 |
| T-115 | 1742 | | 1968 | 18:48 | N 10° | 70.0 | 1000 | T-115 |
| T-116 | 1743 | | 1968 | 18:58 | N 10° | 70.0 | 1000 | T-116 |
| T-117 | 1744 | | 1968 | 19:08 | N 10° | 70.0 | 1000 | T-117 |
| T-118 | 1745 | | 1968 | 19:18 | N 10° | 70.0 | 1000 | T-118 |
| T-119 | 1746 | | 1968 | 19:28 | N 10° | 70.0 | 1000 | T-119 |
| T-120 | 1747 | | 1968 | 19:38 | N 10° | 70.0 | 1000 | T-120 |
| T-121 | 1748 | | 1968 | 19:48 | N 10° | 70.0 | 1000 | T-121 |
| T-122 | 1749 | | 1968 | 19:58 | N 10° | 70.0 | 1000 | T-122 |
| T-123 | 1750 | | 1968 | 20:08 | N 10° | 70.0 | 1000 | T-123 |
| T-124 | 1751 | | 1968 | 20:18 | N 10° | 70.0 | 1000 | T-124 |
| T-125 | 1752 | | 1968 | 20:28 | N 10° | 70.0 | 1000 | T-125 |
| T-126 | 1753 | | 1968 | 20:38 | N 10° | 70.0 | 1000 | T-126 |
| T-127 | 1754 | | 1968 | 20:48 | N 10° | 70.0 | 1000 | T-127 |
| T-128 | 1755 | | 1968 | 20:58 | N 10° | 70.0 | 1000 | T-128 |
| T-129 | 1756 | | 1968 | 21:08 | N 10° | 70.0 | 1000 | T-129 |
| T-130 | 1757 | | 1968 | 21:18 | N 10° | 70.0 | 1000 | T-130 |
| T-131 | 1758 | | 1968 | 21:28 | N 10° | 70.0 | 1000 | T-131 |
| T-132 | 1759 | | 1968 | 21:38 | N 10° | 70.0 | 1000 | T-132 |
| T-133 | 1760 | | 1968 | 21:48 | N 10° | 70.0 | 1000 | T-133 |
| T-134 | 1761 | | 1968 | 21:58 | N 10° | 70.0 | 1000 | T-134 |
| T-135 | 1762 | | 1968 | 22:08 | N 10° | 70.0 | 1000 | T-135 |
| T-136 | 1763 | | 1968 | 22:18 | N 10° | 70.0 | 1000 | T-136 |
| T-137 | 1764 | | 1968 | 22:28 | N 10° | 70.0 | 1000 | T-137 |
| T-138 | 1765 | | 1968 | 22:38 | N 10° | 70.0 | 1000 | T-138 |
| T-139 | 1766 | | 1968 | 22:48 | N 10° | 70.0 | 1000 | T-139 |
| T-140 | 1767 | | 1968 | 22:58 | N 10° | 70.0 | 1000 | T-140 |
| T-141 | 1768 | | 1968 | 23:08 | N 10° | 70.0 | 1000 | T-141 |
| T-142 | 1769 | | 1968 | 23:18 | N 10° | 70.0 | 1000 | T-142 |
| T-143 | 1770 | | 1968 | 23:28 | N 10° | 70.0 | 1000 | T-143 |
| T-144 | 1771 | | 1968 | 23:38 | N 10° | 70.0 | 1000 | T-144 |
| T-145 | 1772 | | 1968 | 23:48 | N 10° | 70.0 | 1000 | T-145 |
| T-146 | 1773 | | 1968 | 23:58 | N 10° | 70.0 | 1000 | T-146 |
| T-147 | 1774 | | 1968 | 24:08 | N 10° | 70.0 | 1000 | T-147 |
| T-148 | 1775 | | 1968 | 24:18 | N 10° | 70.0 | 1000 | T-148 |
| T-149 | 1776 | | 1968 | 24:28 | N 10° | 70.0 | 1000 | T-149 |
| T-150 | 1777 | | 1968 | 24:38 | N 10° | 70.0 | 1000 | T-150 |
| T-151 | 1778 | | 1968 | 24:48 | N 10° | 70.0 | 1000 | T-151 |
| T-152 | 1779 | | 1968 | 24:58 | N 10° | 70.0 | 1000 | T-152 |
| T-153 | 1780 | | 1968 | 25:08 | N 10° | 70.0 | 1000 | T-153 |
| T-154 | 1781 | | 1968 | 25:18 | N 10° | 70.0 | 1000 | T-154 |
| T-155 | 1782 | | 1968 | 25:28 | N 10° | 70.0 | 1000 | T-155 |
| T-156 | 1783 | | 1968 | 25:38 | N 10° | 70.0 | 1000 | T-156 |
| T-157 | 1784 | | 1968 | 25:48 | N 10° | 70.0 | 1000 | T-157 |
| T-158 | 1785 | | 1968 | 25:58 | N 10° | 70.0 | 1000 | T-158 |
| T-159 | 1786 | | 1968 | 26:08 | N 10° | 70.0 | 1000 | T-159 |
| T-160 | 1787 | | 1968 | 26:18 | N 10° | 70.0 | 1000 | T-160 |
| T-161 | 1788 | | 1968 | 26:28 | N 10° | 70.0 | 1000 | T-161 |
| T-162 | 1789 | | 1968 | 26:38 | N 10° | 70.0 | 1000 | T-162 |
| T-163 | 1790 | | 1968 | 26:48 | N 10° | 70.0 | 1000 | T-163 |
| T-164 | 1791 | | 1968 | 26:58 | N 10° | 70.0 | 1000 | T-164 |
| T-165 | 1792 | | 1968 | 27:08 | N 10° | 70.0 | 1000 | T-165 |
| T-166 | 1793 | | 1968 | 27:18 | N 10° | 70.0 | 1000 | T-166 |
| T-167 | 1794 | | 1968 | 27:28 | N 10° | 70.0 | 1000 | T-167 |
| T-168 | 1795 | | 1968 | 27:38 | N 10° | 70.0 | 1000 | T-168 |
| T-169 | 1796 | | 1968 | 27:48 | N 10° | 70.0 | 1000 | T-169 |
| T-170 | 1797 | | 1968 | 27:58 | N 10° | 70.0 | 1000 | T-170 |
| T-171 | 1798 | | 1968 | 28:08 | N 10° | 70.0 | 1000 | T-171 |
| T-172 | 1799 | | 1968 | 28:18 | N 10° | 70.0 | 1000 | T-172 |
| T-173 | 1800 | | 1968 | 28:28 | N 10° | 70.0 | 1000 | T-173 |
| T-174 | 1801 | | 1968 | 28:38 | N 10° | 70.0 | 1000 | T-174 |
| T-175 | 1802 | | 1968 | 28:48 | N 10° | 70.0 | 1000 | T-175 |
| T-176 | 1803 | | 1968 | 28:58 | N 10° | 70.0 | 1000 | T-176 |
| T-177 | 1804 | | 1968 | 29:08 | N 10° | 70.0 | 1000 | T-177 |
| T-178 | 1805 | | 1968 | 29:18 | N 10° | 70.0 | 1000 | T-178 |
| T-179 | 1806 | | 1968 | 29:28 | N 10° | 70.0 | 1000 | T-179 |
| T-180 | 1807 | | 1968 | 29:38 | N 10° | 70.0 | 1000 | T-180 |
| T-181 | 1808 | | 1968 | 29:48 | N 10° | 70.0 | 1000 | T-181 |
| T-182 | 1809 | | 1968 | 29:58 | N 10° | 70.0 | 1000 | T-182 |
| T-183 | 1810 | | 1968 | 30:08 | N 10° | 70.0 | 1000 | T-183 |
| T-184 | 1811 | | 1968 | 30:18 | N 10° | 70.0 | 1000 | T-184 |
| T-185 | 1812 | | 1968 | 30:28 | N 10° | 70.0 | 1000 | T-185 |
| T-186 | 1813 | | 1968 | 30:38 | N 10° | 70.0 | 1000 | T-186 |
| T-187 | 1814 | | 1968 | 30:48 | N 10° | 70.0 | 1000 | T-187 |
| T-188 | 1815 | | 1968 | 30:58 | N 10° | 70.0 | 1000 | T-188 |
| T-189 | 1816 | | 1968 | 31:08 | N 10° | 70.0 | 1000 | T-189 |
| T-190 | 1817 | | 1968 | 31:18 | N 10° | 70.0 | 1000 | T-190 |
| T-191 | 1818 | | 1968 | 31:28 | N 10° | 70.0 | 1000 | T-191 |
| T-192 | 1819 | | 1968 | 31:38 | N 10° | 70.0 | 1000 | T-192 |
| T-193 | 1820 | | 1968 | 31:48 | N 10° | 70.0 | 1000 | T-193 |
| T-194 | 1821 | | 1968 | 31:58 | N 10° | 70.0 | 1000 | T-194 |
| T-195 | 1822 | | 1968 | 32:08 | N 10° | 70.0 | 1000 | T-195 |
| T-196 | 1823 | | 1968 | 32:18 | N 10° | 70.0 | 1000 | T-196 |
| T-197 | 1824 | | 1968 | 32:28 | N 10° | 70.0 | 1000 | T-197 |
| T-198 | 1825 | | 1968 | 32:38 | N 10° | 70.0 | 1000 | T-198 |
| T-199 | 1826 | | 1968 | 32:48 | N 10° | 70.0 | 1000 | T-199 |
| T-200 | 1827 | | 1968 | 32:58 | N 10° | 70.0 | 1000 | T-200 |
| T-201 | 1828 | | 1968 | 33:08 | N 10° | 70.0 | 1000 | T-201 |
| T-202 | 1829 | | 1968 | 33:18 | N 10° | 70.0 | 1000 | T-202 |
| T-203 | 1830 | | 1968 | 33:28 | N 10° | 70.0 | 1000 | T-203 |
| T-204 | 1831 | | 1968 | 33:38 | N 10° | 70.0 | 1000 | T-204 |
| T-205 | 1832 | | 1968 | 33:48 | N 10° | 70.0 | 1000 | T-205 |
| T-206 | 1833 | | 1968 | 33:58 | N 10° | 70.0 | 1000 | T-206 |
| T-207 | 1834 | | 1968 | 34:08 | N 10° | 70.0 | 1000 | T-207 |
| T-208 | 1835 | | 1968 | 34:18 | N 10° | 70.0 | 1000 | T-208 |
| T-209 | 1836 | | 1968 | 34:28 | N 10° | 70.0 | 1000 | T-209 |
| T-210 | 1837 | | 1968 | 34:38 | N 10° | 70.0 | 1000 | T-210 |
| T-211 | 1838 | | 1968 | 34:48 | N 10° | 70.0 | 1000 | T-211 |
| T-212 | 1839 | | 1968 | 34:58 | N 10° | 70.0 | 1000 | T-212 |
| T-213 | 1840 | | 1968 | 35:08 | N 10° | 70.0 | 1000 | T-213 |
| T-214 | 1841 | | 1968 | 35:18 | N 10° | 70.0 | 1000 | T-214 |
| T-215 | 1842 | | 1968 | 35:28 | N 10° | 70.0 | 1000 | T-215 |
| T-216 | 1843 | | 1968 | 35:38 | N 10° | 70.0 | 1000 | T-216 |
| T-217 | 1844 | | 1968 | 35:48 | N 10° | 70.0 | 1000 | T-217 |
| T-218 | 1845 | | 1968 | 35:58 | N 10° | 70.0 | 1000 | T-218 |
| T-219 | 1846 | | 1968 | 36:08 | N 10° | 70.0 | 1000 | T-219 |
| T-220 | 1847 | | 1968 | 36:18 | N 10° | 70.0 | 1000 | T-220 |
| T-221 | 1848 | | 1968 | 36:28 | N 10° | 70.0 | 1000 | T-221 |
| T-222 | 1849 | | 1968 | 36:38 | N 10° | 70.0 | 1000 | T-222 |
| T-223 | 1850 | | 1968 | 36:48 | N 10° | 70.0 | 1000 | T-223 |
| T-224 | 1851 | | 1968 | 36:58 | N 10° | 70.0 | 1000 | T-224 |
| T-225 | 1852 | | 1968 | 37:08 | N 10° | 70.0 | 1000 | T-225 |
| T-226 | 1853 | | 1968 | 37:18 | N 10° | 70.0 | 1000 | T-226 |
| T-227 | 1854 | | 1968 | 37:28 | N 10° | 70.0 | 1000 | T-227 |
| T-228 | 1855 | | 1968 | 37:38 | N 10° | 70.0 | 1000 | T-228 |
| T-229 | 1856 | | 1968 | 37:48 | N 10° | 70.0 | 1000 | T-229 |
| T-230 | 1857 | | 1968 | 37:58 | N 10° | 70.0 | 1000 | T-230 |
| T-231 | 1858 | | 1968 | 38:08 | N 10° | 70.0 | 1000 | T-231 |
| T-232 | 1859 | | 1968 | 38:18 | N 10° | 70.0 | 1000 | T-232 |
| T-233 | 1860 | | 1968 | 38:28 | N 10° | 70.0 | 1000 | T-233 |
| T-234 | 1861 | | 1968 | 38:38 | N 10° | 70.0 | 1000 | T-234 |
| T-235 | 1862 | | 1968 | 38:48 | N 10° | 70.0 | 1000 | T-235 |
| T-236 | 1863 | | 1968 | 38:58 | N 10° | 70.0 | 1000 | T-236 |
| T-237 | 1864 | | 1968 | 39:08 | N 10° | 70.0 | 1000 | T-237 |
| T-238 | 1865 | | 1968 | 39:18 | N 10° | 70.0 | 1000 | T-238 |
| T-239 | 1866 | | 1968 | 39:28 | N 10° | 70.0 | 1000 | T-239 |
| T-240 | 1867 | | 1968 | 39:38 | N 10° | 70.0 | 1000 | T-240 |
| T-241 | 1868 | | 1968 | 39:48 | N 10° | 70.0 | 1000 | T-241 |
| T-242 | 1869 | | 1968 | 39:58 | N 10° | 70.0 | 1000 | T-242 |
| T-243 | 1870 | | 1968 | 40:08 | N 10° | 70.0 | 1000 | T-243 |
| T-244 | 1871 | | 1968 | 40:18 | N 10° | 70.0 | 1000 | T-244 |
| T-245 | 1872 | | 1968 | 40:28 | N 10° | 70.0 | 1000 | T-245 |
| T-246 | 1873 | | 1968 | 40:38 | N 10° | 70.0 | 1000 | T-246 |
| T-247 | 1874 | | 1968 | 40:48 | N 10° | 70.0 | 1000 | T-247 |
| T-248 | 1875 | | 1968 | 40:58 | N 10° | | | |

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